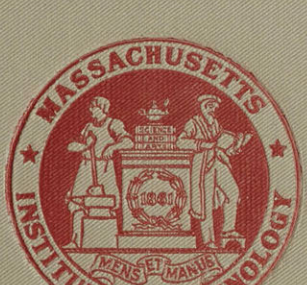
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September 10th, 1923.

MR. FREDERIC H. FAY, Secretary, Class of '93,
Boston, Mass.

My dear Fred:—

In your recent letter you ask me for:—"an account of the Reunion as it impressed you, noting facts and events which may be of historical worth, incidents which will add to the interest of the combined story, and particularly, impressions which you received as to the significance and spirit of the occasion. . . ." It is a thoughtfully worded request, old man, and it smacks of the skill you have displayed these thirty years as Secretary of our Class.

The part of your request that appeals most strongly to me is—"particularly, impressions which you received as to the significance and spirit of the occasion. . . ." There were many such—"impressions"—and I feel it a privilege to make a record of some of them, and it is—"the significance and spirit of the occasion"—which keeps coming back, always coming back, as I think of our Reunion.

To me,—"the significance and spirit of the occasion"—is best represented by Fabyan, by Bemis, by Morss, by Fay, and the men and women you had on your staff. It was all done in such a big-hearted, high-minded sort of way. I am too plain of speech to flatter. I tell all of you four men, as I told all of our Classmates, that such a reunion as ours proved to be, can only be planned and carried through to such a successful conclusion because of a small handful of men who have done in the past years more for us, as a class, than we can ever realize and appreciate. At our thirtieth reunion you simply went beyond all bounds and made our Class celebrated; because of your devotion, because of your untiring energy and because of your boundless generosity.

I say here and now I consider our Class most fortunate and highly privileged to have such a group of men as a part of it. I gladly admit it is this group who have made such a place in Technology World for all of us—the Class of '93.

God bless you all! Warm-hearted, generous, tactful,—Wright Fabyan; thoughtful, appreciative, helpful,—Farwell Bemis; loyal,

enthusiastic, painstaking,—Henry Morss; and you,—Fred Fay! Adjectives do not suffice. You have done your full share. Always on the job; always anxious to be helpful, painstaking and tactful (repeating these adjectives for you).

I say it once more, God bless you all! We—all of us—owe you men a debt of gratitude we can never repay and I maintain that history—the history of the Class of '93, must so record.

The—"significance of the occasion"—Fred, is: We PARTED thirty years ago as the youngest kind of young men and now we have had our wonderful coming together—mature, sober-minded, thoughtful men; semi-old, if you choose; capable of expressing our own opinions. When we parted in 1893 the spell of the scholar was upon us. "How did you do?"—"Have we won our Degree?"—"Where do we go?"—etc., etc. THIRTY years after, we are the men of the world—a contributing part of them—and at fifty years and more—"the significance"—has much meaning to us. We, the boys of yesterday, meet us, the men of to-day. Yes! it was successfully—"significant"—and not a man of us will ever forget it. We will get a 100% vote on that question.

"The spirit of the occasion"—('spirits,' if you choose)—Fabyan, Bemis, Morss, Fay,—can I say more? You cannot ask me to say less! Go to it, boys! You have won!

And when the next reunion comes—and it will come, whether it is one year, five years, ten years from now—but when it comes, boys and men of the Class of '93—"LEST WE FORGET"—no Class, as a Class, of Massachusetts Institute of Technology has gone further for, done more for, and deserved more from her Alma Mater, than the Class of 1893—thanks to a handful of loyal men who have shown the rest of us the way.

Sincerely always,

(Signed) J. Ramsey Speer.

Numadzu, Japan.

MR. GEORGE B. GLIDDEN,
551 Tremont St.,
Boston, Mass., U. S. A.

My dear Glidden:

It was really a happy surprise—the news my wife told me when I returned from a trip in the new year that she paid ten sen for a custom duty to receive a box from Boston. I told her I never ordered anything from Boston lately and it must be some mistake. But upon seeing the address it was surely for me and opening the box gave me such heartiest smile over the gifts contained. Please extend my sincere thanks to the Class and my appreciations of the real spirits of the class '93 boys, so much thoughtfulness of a fellow now living far away from your city.

The pipe I value so much and now almost finished a pouch of tobacco. I am still enjoying smoke from it and feel like a boy some thirty years ago at Tech societies. Please send my arigato (Thanks) to Wright Fabyan and tell him that I hope he will come to Japan and see our country. I shall do my very best to have him have a good time here. This invitation extends to all of the Class '93.

Taintor and family were here two years ago and I was with them during their stay in Tokyo. We went together to see the 47 ronin tombs and then to see the real Jiujitsu wrestlings. All such places were not burnt up and there are lots to see yet.

With my best wishes to the Class of '93 and my personal regards to you and your family and hope in the very near future you and your family will pay us a visit.

Yours most sincerely,

(Signed) H. MAKI.

IMPRESSIONS OF THE REUNION

BELIEVING that it would bring the Reunion more vividly before those who were unable to attend, the Secretary asked each member who did attend to send in his recollections and impressions of the event. The result of this request was highly satisfactory. The replies, if printed in full, would be most interesting reading, but the generous volume of the letters from practically every one of the seventy-one men present is such as to prevent their inclusion in full within the limits of this book. Accordingly, excerpts have been made and compiled in the composite write-up which follows:

"At one of the meetings of the Class of '93 held at the Algonquin Club during the winter, a vote was taken of the members as to their wishes in regard to celebrating the 30th Anniversary of their graduation. As a result of their vote, it was agreed to get together for three days during the first part of June, and the matter was placed in the hands of a Committee. Little did the rank and file of the class know what they voted for, but the committee must have realized the importance of the event from the very start, for soon after that meeting each member began to receive announcements to reserve certain dates in June; then followed notices of some of the attractions, to draw the Class together, and finally the ladies of the Class were formed into a Committee and appealed to to see that their husbands were present as well as themselves. The program was presented so attractively that it took a heart of stone to refuse."

"The preliminary work was cleverly done and the circulars sent out month by month showed a great amount of work and enthusiasm on the part of the Committee. They must have inspired many members to attend."

"When the notices of the '30th Reunion' began to come a year ago, I immediately started marking time; and as they followed, one after the other, the arrival of each new one brought to me memories of our days of hopes, friendships and companionships. I would tell my wife of the finest men on earth, of the happenings (with due care) long since nearly forgotten. I began to realize my lonesome-

ness for the days I had known and the fellows who gave me some of the happiest days of my life."

"I approached the Reunion with indifference, doubting the possibility of creating a class spirit thirty years after graduation and with a false idea that only a few would care a rap about me."

"I decided to attend, feeling it was the least I could do to support those who had worked to make it a success and feeling I ought to get there from Boston when others would travel from distant places."

"The first event of the gathering of the Class was on Thursday evening, June 7, at the 'Pops' in Symphony Hall. This, while quite well attended, left one wondering just who and how many of the Class were on hand and what to expect."

"The first thrill I had was at the Lenox Hotel on Friday morning, where about a dozen men went prior to the Algonquin Luncheon. Houck and myself were together. We stood for a short time in the lobby and then began to spy this and that member of the Class. Most of them I had seen on several occasions since '93, but when two of them whom I had known specially well and had been very fond of and had not seen for thirty years, walked in, the sensation was almost beyond description. (They were Fred Baker and Ramsey Speer.) It is needless to say that during the three days of the Reunion that I made up for the absence of their companionship during all that time."

"The second gathering was on Friday at a luncheon given by the Class President at the Algonquin Club. After meeting the 'Class Baby' (Mr. Fabyan's charming daughter), each member was individually labelled and a sumptuous luncheon was served. Automobiles were in waiting and the members enjoyed a beautiful ride along the South Shore, through Cohasset and the shore towns, —a pleasant automobile trip, into which bursts a view of Minot's Light with the ocean and great rock ledges, till we arrived at the Old Governor Winslow house in Duxbury, a large, rambling, unpainted house and a yard packed with autos and fellow travellers, where afternoon tea was served and where we had an opportunity to see some relics of olden times—Houck looked as well in that old tile hat as any noble ever did."

"At three o'clock, we arrived at Plymouth Rock, the first view, I dare say, for many of us of that famous and historic stone. The memorial building erected by Beattie looks as sturdy as himself and will protect Plymouth Rock for the ages to come."

Party at Plymouth Rock en Route to Wianno Club, June 8, 1923.

Wianno Club, Cape Cod, Massachusetts

Costume Dinner Party—Wianno Club

BAKER F. D. SMITH
FAY BEMIS BUCHHOLZ REYNOLDS EMERY PAINE P. H. THOMAS DILLON MORSS VINING
BRYANT LATHAM WALLIS STOSE GLIDDEN DAWES LAMB WALDRON LYNCH SPOFFORD

Base Ball Teams, Wianno Club, June 10, 1923.

"Resuming our route, we arrived at the Wianno Club about six o'clock, and we were told to get into our costumes for dinner."

"When I read the program, I felt that the costume party would be something of a bore and hardly worth the trouble. I was mistaken, for now I believe that this feature was the one thing which at the start broke up all formality and led to the thoroughly good fellowship for both the men and the ladies present, which existed throughout the Reunion."

"It was a dangerous looking aggregation that sat around the tables this time—Wild West Indians, cow boys, and all manner of desperadoes, mingled with beautiful ladies sumptuously dressed. It was a motley throng. The class baby had now attained a stature of over six feet. After a very satisfying dinner, everyone began to feel as though we had all been boys and girls together at the same school all our lives. The ice had 'busted' and no more skating for the rest of our stay. Then the Committee passed out bills of untold denomination and we began to squander them at the hazardous game of roulette. In the game the ladies far outshone the men and for the rest of the outing the men were decidedly outclassed. And then dancing—fair ladies and wild men, all in a gay, maddening whirl. Prizes had been provided for everything, except capacity of eating, and it was wise that they knew where to draw the line. Pipes and tobacco for the men and needle cases for the ladies were freely distributed. For the couple who had travelled the farthest to attend the Anniversary, the Committee presented Mr. and Mrs. Allen from Mexico City with a silver loving cup. Two members claimed that they had travelled 23,000 miles to get there, but the Committee decided that it was a plot and that they started at the wrong place. For the most attractive costumes the Committee awarded first prizes to Mr. and Mrs. Biscoe, who appeared as Robin Hood and Maid Marion, and to Mr. and Mrs. Bemis in charming East Indian costume."

"Saturday morning, rain and a northeast wind. Auction for some, many of the men playing golf—rain seems to make little difference to the golf enthusiasts. In the afternoon guests of President Fabyan at his summer home at Buzzards Bay, where Mrs. Frothingham presided at the tea table. We had the freedom of the place, a wonderful time, beautiful gardens—such a place as one dreams of. May Fabyan's enjoyment of it be long and without end!"

"The feature of the afternoon was the visit to Fabyan's home on Buzzards Bay; for afternoon tea, we were told, and yes, we

had tea; and—other things. Truly we were royally entertained. Fabyan's daughter, in the absence of Mrs. Fabyan in Europe, made a most delightful hostess and guide to many points of interest on the estate—the swan, the fowl, the old-fashioned flower garden, etc. The house, too, is full of most interesting objects, particularly old prints and books and these were entertainingly described to us by our genial host and president, as he conducted us around."

"I was very much impressed by our hostess—Wright's daughter. I think it was quite remarkable the way she passed around and fitted in with people who, in the main, were twenty to twenty-five years her seniors. My impression was that she was a mighty good sport and I took occasion to tell her so."

"Perhaps the highest point of all in my opinion was the wonderful way in which the Fabyan family entertained us. Wright Fabyan's charming conduct of all the meetings and the gracious way that both he and his daughter presided at the home reception of the Class was an outstanding incident never to be forgotten."

"I was impressed by the extraordinary attention that the president gave, in a personal way, toward the happiness of the members. His hospitality, at the Algonquin Club and later, at his Buzzards Bay shack (as he calls it) could not have been finer — and not forgetting at the latter place the little room upstairs which was well patronized at all times."

"I regretted very much his removal of the inspirational spirits that were being absorbed by that embryo quartette, Houck, Buchholz, Baker and Paine. The boys were just warming to the Muses, and after thirty years it takes some spirits to move one. If you wish to know—it was there the '93 song first burst forth."

"Such things as the gifts that he made, both to the men and women, will always be remembered, and I hope never lost. I have had my name and address carved in the bowl of my pipe so that should it become mislaid I will have a chance of getting it back."

"It was all we could do to tear ourselves away from these new and unusual surroundings to obey the call of the photographer and the sun for the purpose of obtaining a group picture of those present. It was managed at last, however, and the picture turned out to be a complete success. (No doubt those not present desiring copies, to show what they missed, can obtain them from our tireless secretary, who is ever ready to do a favor for you, whether you deserve it or not)."

"The indoor sports were fine and while the ladies were so beautifully entertained at our president's bungalow, a small crowd of us had mighty good fun in a little game of penny ante. The feeling in the game was just as keen as in the old days, as was demonstrated by the fact that one of our very dear friends, who lost consistently the first hour without saying a word, all of a sudden burst forth with a most profound statement of his views couched in language which would probably have been followed with an 'FF' by our beloved Fred Emery."

"It might also interest you to know there was a poker game going on Saturday afternoon, in one of the rooms, among some of the boys who had not seen each other for thirty years, and while the results were disastrous to some, they were beneficial to others."

"I presume the one event which impressed me most was when I sat at the table the night of the annual meeting with many of the old Class officers of 1893 and the large number of classmates, and it brought to my mind, the roll-call of the old days.—Abbott, Allen, Ashton, Baker, Barbour—Tripp, Vining, Wadsworth, Waldron, Walker, Wallis, Woodbridge. It seemed as though the boys were back at Tech again and we were simply getting ready for drill or recitation. At first I found it difficult to remember some of the fellows but after talking with them a while, they seemed very much the same. It was hard for me to realize that it was simply our Thirtieth Reunion at the Wianno Club."

"The choice of a Toastmaster, Ramsey Speer, was an excellent one, and it seemed like an old Class Dinner at Tech to hear him carry on. While he has done many big things in the business world since graduation, he is still the same likable Ramsey."

"Marvine Gorham led the singing of the refrain of 'Good old '93, she's as good as she used to be', and it proved an occasion that will be remembered for many a year. Silver cups were passed around as reminders of the days that had been, and after they had been used and carefully wiped clean, each man quietly slid one into his pocket."

"The good food was ably supported by the flowing bowl (mug rather) and the peaceful pipe, thanks to our most thoughtful and generous president. But these are not the principal enjoyments of a class dinner, rather the comradeship and the reminiscences which are always present and were on this occasion to a marked degree. The statements of past history and future plans, the toast to the ladies behind the screen, the silent toast to those who have gone

beyond, the complimentary remarks about the class officers—all are the important and unforgetable parts of our Class dinner."

"There are other lesser impressions that I had—all of them happy ones—but after all not particularly important and perhaps too personal, but if all of these and the ones enumerated above were added together it would not amount to a fraction of the lasting impression of the announcement made at the dinner of the wonderful gift that 'a few men' made possible for the class. Such a bit of unselfishness should, I think, go down in the history of Technology, and of colleges generally, as being unique. I have never heard of a gift being made in such a wonderful spirit. It is an example that might well be used as a standard, not only in other colleges, but in great political movements of the country. Only last evening, I had dinner with Van Rensselaer Lansingh of '98. You know that they are a pretty active crowd and have the nerve to think that they are better than '93. Upon my telling him of the circumstances of the gift, he was not only impressed but surprised. He did not know that in reality the gift was that of a 'handful' of men."

"The gift was princely and it is a privilege to be a member of Tech '93 and share in this epoch-making generosity, which was announced in such an unostentatious manner and in such a delicate way that we could not help but feel the high regard that the unknown underwriters have, not only for the Institute, but also for the Class of '93 individually and collectively. I feel that not only those present, but those who were not present, owe a deep debt of gratitude to our fellow classmates who had this in charge and who were able and glad to bear the brunt of such a burden."

"It was a fine thing to do under any circumstances, but a superfine thing to do anonymously to allow others to share in it."

"That the Class has produced the type of men who are 'big' enough to give a dormitory to Technology in the name of 'Class of '93' instead of in their own name is to me the outstanding impression of the Reunion."

"It has tended to increase my inclination to be of service to others and no doubt has made the same impression on the others present."

"It was a revelation to me of the true spirit of giving. May it be taken as the spirit of '93—the endeavor to do great things in simple, unostentatious ways."

"No class ever had more generous or loyal members than those few of '93 who provided a fund for a dormitory and then permitted the entire class to participate at one dollar each in resulting glory."

"It showed a most unselfish spirit for a few men of the Class to tax themselves so heavily and then give the credit to the Class as a whole, and everyone present felt his heart strings pull to think of their generosity and to feel himself included."

"The subscription of the dormitory fund brought us all closer together, for we all appreciated the great need, the blessing it would be, and the honor to '93 as the donor."

"The underwriting of the $100,000 fund by our associates touched every man deeply and brought feelings akin to tears and throat lumps to many, even the most hardened, to think that successful '93 men can be so unselfish, high minded and Tech generous."

"You will recollect that this event (the Class dinner) started about eight o'clock and was going strong at midnight. I never before had heard whispered cheers such as we resorted to in order to avoid disturbing the ladies. Men of the type who were present that night are proverbially diffident about making a loud noise, so that whispering the 'yells' gave them an opportunity to turn loose and show their feelings without loss of so-called dignity. I will never forget that display of enthusiasm."

"A most impressive feature was the roll call of those who had passed the vale. As the names of the dear ones who had passed beyond were called, there was hardly a dry eye in the whole group."

"The grand finale, Sunday morning, when the baseball game was held, under clear skies, with the ladies wildly cheering and the daring base running, must have given every one a thrill. The home run of 'Babe Ruth Glidden', with four on the bases, was also impressive, not only to Glidden himself, but to the whole opposing Team, and the way Emery's Team cleaned up Glidden's was decidedly impressive as shown by the final score."

"Although I sang lustily with Marvine Gorham to the tune of 'The Old Grey Mare' that 'Thirty years from now she'll be better than she used to be thirty years ago', I didn't for an instant imagine that such a miracle would be possible even for '93, even though we all undergo the gland grafting operation or any other improved operation for rejuvenation about which we read in the papers every day. But looking about at the ball-game on that June morning it seemed to me that physically and mentally, spectators, as well as participants in the game, we were all as good as we were

and perhaps even better in some respects than when we graduated thirty years ago."

"Perhaps I was more impressed with the Class Spirit as evidenced by the number of men who were present than anything else. It has often been said, as you know, that Harvard, Yale, and some of the other colleges carry on their class spirit to a greater extent than Technology and other technical schools, but I don't believe that any Thirtieth Reunion in any college could have surpassed that which we had."

"What class, from any educational institution, could have turned out in such numbers after thirty years? Emphatically—none. Did you see a member without a loyal spirit? I did not. How we all enjoyed the costume party and the class dinner. We will none of us soon forget the occasion. We are looking forward to our fiftieth now and hope we shall all be spared to see it."

"It will be hard to make those men who were not present appreciate the splendid friendly atmosphere that pervaded the groups of members with their wives and daughters at Wianno."

"It was a bright spot in the lives of all who were able to attend it. Three days of playtime in which to renew friendships with our old associates, most of whom had not met for many years."

"Old friendships that lay rusting for thirty years were cleaned up and renewed."

"As a result of the Reunion, I am now corresponding with classmates who, though not forgotten, were lost by lack of contact."

"The occasion of the 30th Reunion was particularly pleasant to me, as it resulted in the rebirth of a friendship with one whom I had known some years before entering Tech, but whom I had not seen and from whom I had heard no word since our graduating day. If for no other reason, this one event more than repaid me for any effort I made to attend the 30th Reunion of the Class of '93."

"Generally, where people have not met for a long time, a lack of interest develops—not so in this case and enthusiasm was rampant."

"I did not feel it possible that 'we youngsters' had passed the half century mark."

"It was hard to realize that we had not seen some of the men for thirty years, as we instantly picked up the friendship where we dropped it and without formality."

"It was as fine a bunch of good fellows as I could wish to meet. The renewal of acquaintance with old intimates of 1889-93,

and getting better acquainted with fellows one did not formerly know intimately, learning about their undertakings and successes, and meeting the charming wives of many of them—was a real treat."

"While the large number of fellows who turned out was a great surprise, we were, of course, disappointed that some of our particular cronies were unable to attend, and the message I am trying to convey is, that we were all boys together at Wianno, there being absolutely no distinction between those who had made a huge success and the many of us who are still just ordinary plodders."

"The thing which impressed me most was the fact that although the weather was unfavorable during the first part of the outing, I do not recall hearing any expression of disappointment on account of the weather. The program was not so rigid that it could not be varied to meet any weather conditions."

"Another thing which impressed me was that, although a program was laid out, it was sufficiently broad to leave each one considerable freedom of action. This allowed individuals or small groups to follow their own inclinations up to a certain extent for amusement and recreation. This did not, however, result in the formation of small cliques which might tend to break up the Reunion spirit."

"While I felt as though, not being a graduate with the Class, I really didn't belong in the crowd, I enjoyed the whole Reunion more than anything I have taken part in in a very, very long time. It was an unqualified success from every point of view."

"From my own good time and from the remarks of others, the reunion was one grand success and those of us who did nothing toward it, realize how hard the others must have worked and thought to have made the whole time so attractive. Let us have another soon."

"Another impression that will be lasting is the marvelous precision with which the committees worked out the details of the meeting. It left nothing for the rest of us to do but to have a good time — every move and desire was taken care of — and I am sure that no organization of any kind could have handled it with greater efficiency."

"The hospitality of the resident members of the Class to the visiting members will ever be remembered."

"Another impression which I gained was of the sound quality of the men and women present. If this is the class of families which the Institute turns out, we need have little fear of the future

M. I. T. Class of '93 at F. W. Fabyans, Buzzards Bay June 9th, 1923.
Glines
Photo
34 St. Botolph St.
Boston.

of this country or any situation such as is indicated in the recent story by Arthur Train, 'His Children's Children'."

"What has impressed me most in thinking over my experiences at the Reunion is, what I have missed by my non-attendance at the other reunions which the Class has had previously. If one is privileged to attend college and form the pleasant and profitable associations of classmates there, he certainly is foolish to let such friendships lapse by non-attendance at Class functions, when it is possible for him to be present. There will always be something to be gained and possibly something to give."

"I have asked myself the question over and over again, 'Why didn't I take in the other reunions?' I'll never miss another."

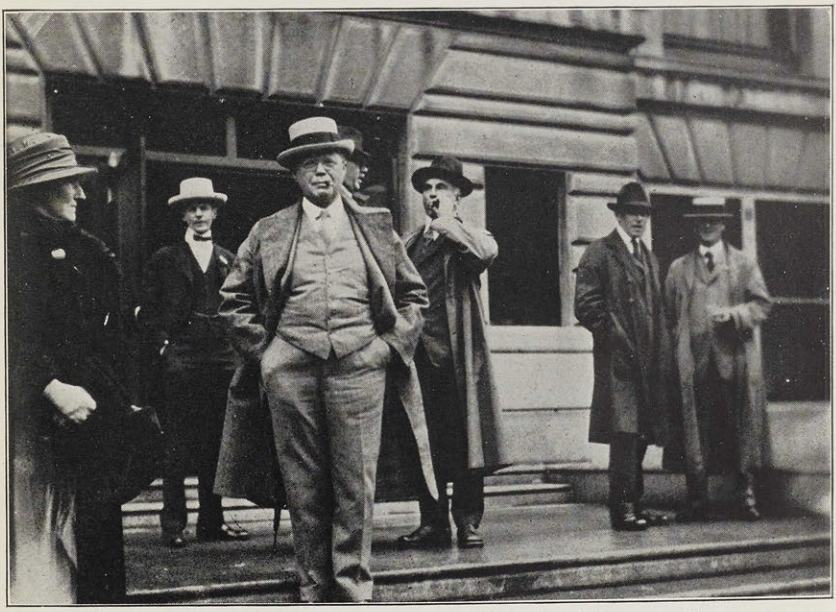
"The Thirtieth Reunion of the Class of '93 was to me personally an especially significant one. It was the first I had been able to attend in over twenty years. Unfortunately, I was recovering from a slight illness at the time and was prevented from attending all the meetings, but it was a real pleasure to see and meet again my old classmates, after so many years, to again get in touch with the important work that is being done by the men of '93, and to note the varied occupations to which the men have devoted themselves in spite of their training having been of an engineering and technical nature. The conclusion to be drawn from this, it seems to me, is that the technical training of the Institute is not narrow in its results."

"I went, found seventy-one fellows and forty girls all glad to see me, met old friends, made new ones, had a bully time all the time and was sorry when it was over. I returned to Boston refreshed and inspired, have talked and am still talking about the wonderful time we had and am already looking forward to the thirty-fifth."

"Those three days, June 8th, 9th and 10th, were so full of joy and happiness they will ever live in the memories of those present as the important event of a lifetime."

"The main impression left in the mind of the writer was that we were boys together, and we should be mighty close to each other as we approach the age when we are no longer able to take the leadership in the classes of work to which we have devoted our lives. This was the whole spirit of the occasion and the message should be carried to those who were not present, so that they will be made to feel that they are missed by all of us when they do not attend the reunions."

Base Ball Game, Wianno Club, June 10, 1923.



Dearborn Houck Taintor Baker Bemis Paine
At Algonquin Club, Boston, June 8, 1923.

Starting from Algonquin Club, Boston, June 8, 1923.

Siesta at the Wianno Club.

Hinckley Rice Allen (in background)
At Algonquin Club, Boston, June 8, 1923.

Glidden Boss Speer Buchholz
Mrs. Buchholz Mrs. Glidden Mrs. Boss
At F. W. Fabyan's, Buzzards Bay, June 9, 1923.

BAKER SPOFFORD VINING REYNOLDS LATHAM PAINE
At the Wianno Club.

"The efficient manner in which the Reunion was conducted and the splendid work of our president, Mr. Fabyan, as well as the charming way in which he and his daughter acted as host and hostess, impressed me more than I can say. Our Class is indeed fortunate in having such a man as Fabyan for its president, and I doubt if, in the history of the reunions of the Institute, there ever has been the equal of '93's."

"One of the features which helped make the success of the whole thing was that everything was so marvelously planned in advance. To begin with, the number of people who turned out was astonishing, and this reflects great credit on the Committee who had the matter in charge, Henry Morss being largely responsible, I believe, for his wonderful cartoons kept it in our minds right along."

"Let me say that every man who served on any of the Class Committees must have felt more than repaid for his labors by the enthusiasm which was so clearly shown by every member of the Class present."

"Our Class stands out in prominence from many of the past classes of Technology and undoubtedly it is because of the men who make up our Class. Farwell Bemis has been among those men who have been our Class leaders, and knowing what he has done for 'Technology' and for '93, I particularly enjoyed reading his book, 'A Journey to India'; written in a delightfully kindly and humorous vein, Bemis discloses a shrewd and accurate insight into not only the condition of India but into World conditions as well. On every page of his little book, I found something of interest."

"Then, too, many of our wives were there—more pals, and good ones, too—recognizing a relationship not much appreciated in '93 but now and hereafter a big bond of spiritual fellowship and undying source of spiritual growth to the glorification of '93."

"I think mention should also be made of the standard of our wives. It seemed to me that they represented the highest type of American womanhood. I would like to suggest that one night during the winter we have a Class dinner for men and wives."

"It was a happy thought on the part of some married (?) member of the Class to have the wives join the celebration, as when we get along to about the twenty-fifth anniversary of our married life, they are in the habit of sharing in most of our entertainments, and it was a great pleasure for me to have my wife with me and also to meet the charming wives of so many of the other men."

"The atmosphere without them might very well have been

that of a comfortable men's Club but with them it assumed more that of a week-end party in a delightful home."

"When leaving, one of the ladies asked, 'Why wait five years before inviting us again?' "

"The Class has been strengthened by the women who are now staunch supporters of the greatest Class that ever left Tech."

"Of course we have been successful, how could it have been otherwise with such guiding influences? I would have them with us at all future reunions."

"The friendships formed at Tech led to intimate confidences with regard to present family and financial conditions. A large majority of the Class of '93, in common with other boys who went to Tech in those days, were not over and above endowed with substantial means. Since that time in our various walks in life, we have used our training in the services we are performing, and have placed services rendered above monetary matters, with a result that the class as a whole is not a rich one, as far as worldly goods are concerned, but is exceedingly rich as far as the record of performances and accomplishments is concerned."

"In regard to my reception at Wianno I have no words to express my appreciation of the cordiality and good fellowship enjoyed by me, to say nothing of the splendid if not amazing hospitality extended by you men of Boston to us fellows who came from outside. It was really remarkable, and ever since the Reunion I have sensed a feeling that I am under a great obligation or debt to those who must have made great exertions in order that such an affair should have been carried out in the manner that it was."

"The renewal of old friendships and intimate acquaintances seemed to vividly bring back old class days and stimulated the loyalty which we all feel for M.I.T."

"The High Lights of our Thirtieth Class Reunion (as I see them) were the intense loyalty of the men of Tech '93, and the interest we all had in anything that concerns Tech.

"Confined not only to the men, but this loyalty was very noticeable among the ladies, who were proud their husbands were Tech men and of the '93 brand."

"While we are all growing older, I came to the conclusion, upon again meeting our many friends, that we are 'not so old'. Certainly, after thirty years, features and appearances were the same, with the exception of a little rotundity here and there, and the same spirit as in the old days was present. Memories were renewed and

events which took place in Tech were again reviewed. We recalled the demonstration on the blackboard by Professor Cross, in which he stated, 'Gentlemen, you see I have made a little cross', after which the Physics Class was dismissed; the great love which Professor Linus Faunce, the 'million dollar beauty', expressed for the Class of '93; the disappointment we all felt when Professor Levermore failed to emphasize his remarks by banging his pointer on the platform after a torpedo had been carefully placed on the end; and the greased pig, toy engine and the rooster, which we furnished at the semi-annual freshman drill."

"My impression of the Reunion was — that it was the most interesting, enjoyable, profitable, and friendly meeting we ever had. There was neither word nor act of discord from alpha to omega—no thought of self, but only interest and enjoyment in the doings of our old-time pals and keen satisfaction that we established this basis of life-time friendship at Tech in 1889-1893."

THUMB NAIL COMMENTS

"The Spirit of '93 has not diminished with the passage of the years."

"To all of us, I feel sure, it was a pleasure the memory of which will last as long as life endures."

"A grand success,—socially, and personally, and financially for Tech's best interests."

"A wonderful turn out and everybody had a good time."

"In the future, I would suggest more frequent reunions."

"The five year periods keep us too long apart."

"Would like to move that the present officers serve for life."

"The transportation committee was not found wanting."

"Cannot imagine any that could be more enjoyable or any which could surpass in enthusiasm or loyalty to our ideals."

"Largely representative of the class, not composed simply of the leaders."

"An opportunity to cast aside the cares of business and return to the joys and pleasures of youth."

"Success, great or little, has made no difference in the men."

"If he is a '93 man, he is accepted as a 'chum'."

"The place—it could not be surpassed."

"The size of the gathering and the loyalty to our Alma Mater."

"A visit to 'a cottage and garden' of Mr. Fabyan's."

"An evening glow of brilliant colored costumes, from American Indians to British Indians."

"The base-ball game."

"The gift—a never to be forgotten incident."

"One of the most magnificent things ever put over."

"The modesty of those who were back of it."

"The enthusiasm at the Class Dinner. Truly he is greatest who serves best."

"The receipt of Farwell Bemis' 'A Journey to India'."

"A memorable occasion to all of us."

"The surprising attendance after the lapse of a period commonly considered a generation."

"The cordial greeting at the Algonquin Club."

"The reception and greetings by my friends and classmates."

"The extreme pleasure of meeting our class baby."

"Welcoming of old friends lost for years."

"All the time balancing and nibbling at a plate of lunch."

"After a delightful dinner, a costume party and a fling at Monte Carlo."

"Pleasant breakfasts and lunches with new friends."

"The light pouring in the windows overlooking the sea."

"A grand success from start to finish."

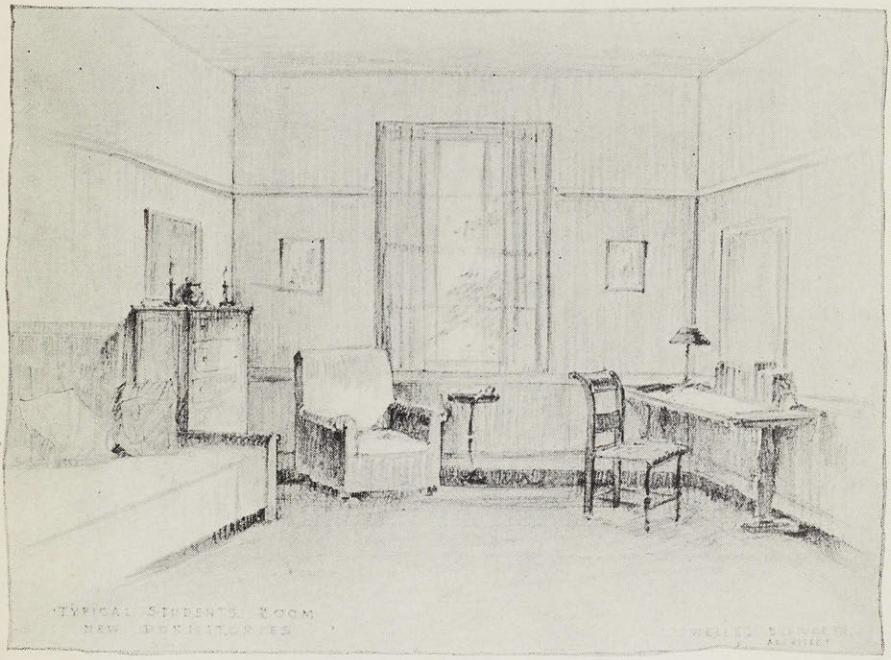
"Plan delightfully conceived and successfully carried out."

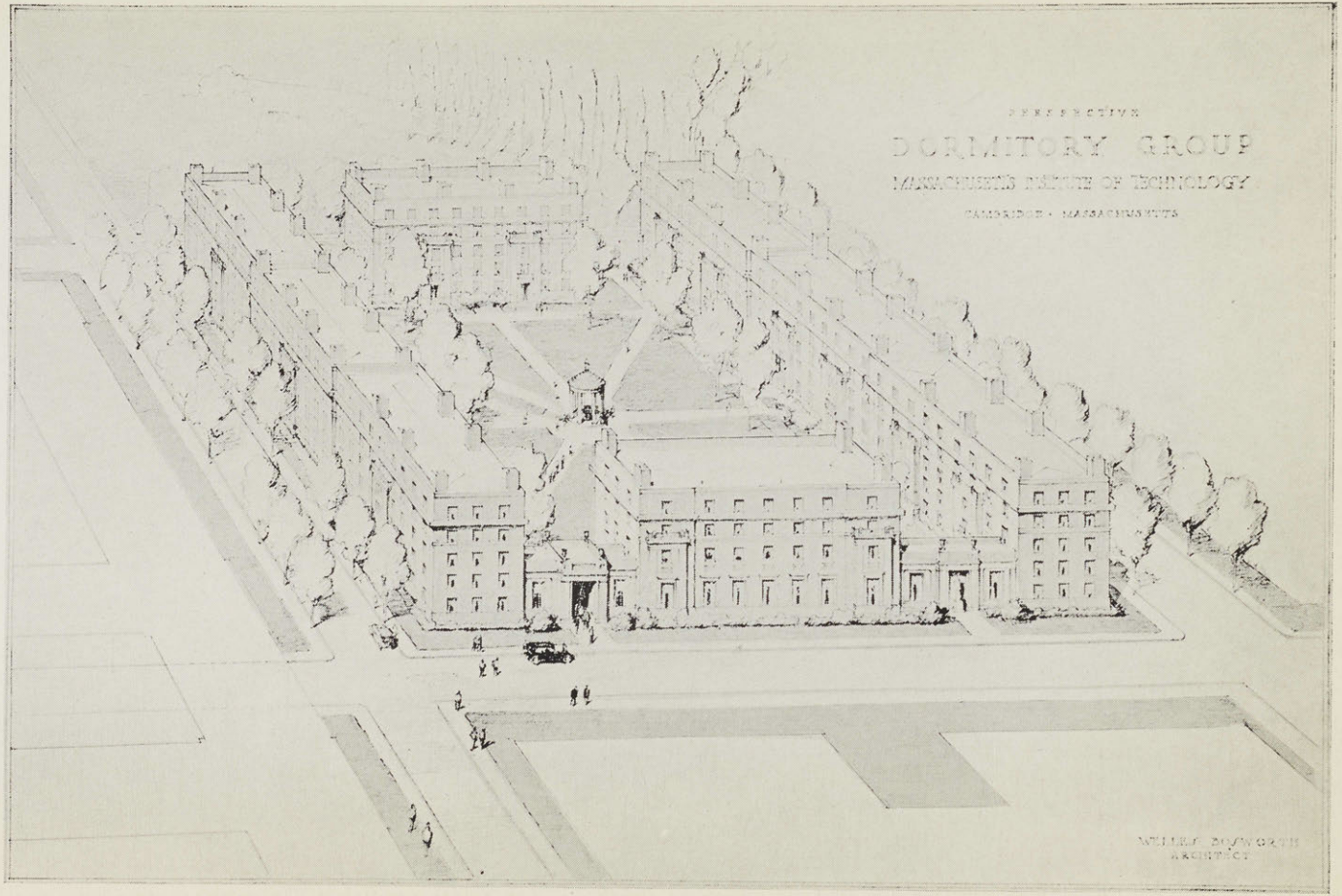
"Three days of play time to renew friendships."

"Meeting the wives and daughters."

"The 'get-together' spirit."

"The associations of those three days could not help but make the members more loyal to the Class and also to the Institute of Technology."


TYPICAL STUDENTS' ROOM
NEW DORMITORIES



Note: The Ninety-Three Dormitory Is the Center Section of the Right (Easterly) Wing

NINETY-THREE DORMITORY

AT the annual meeting and dinner held during the Thirtieth Reunion at the Wianno Club on June 9, 1923, the Class was electrified by the announcement that certain of our members had offered to underwrite a gift to the Institute of $100,000 toward the building of a dormitory, provided the Class would sanction the project as its own and that each member would contribute one dollar or more toward the fund in order that the gift might be truly representative of the Class. After enthusiastic expression of the deep appreciation of the members present of this action on the part of the unknown underwriters, the following vote was passed unanimously:

> In view of the great outstanding need for additional dormitories at Technology,
>
> And in recognition of the Institute's high ideals and training which have made possible for us this great thirtieth anniversary of our graduation,
>
> And in view of the underwriting by some of our members of a gift of $100,000 in the name of the Class of '93 toward the erection of a dormitory building to be begun at an early date subject to specification by the said underwriters,
>
> RESOLVED, That our Treasurer be authorized and instructed to assess every member of the class $1.00 with a view to making unanimous this dormitory gift to our Alma Mater;
>
> RESOLVED FURTHER, That the President and Treasurer be authorized and instructed to collect and take temporary charge of the underwritings and assessments amounting to $100,000 authorized as above and to tender and pay over the total of this fund to the President and Treasurer of the Institute in such manner and at such time as may in their judgment best carry out the purposes of this resolution.

In conformity with the above vote, the following letter was sent to the President and Corporation of the Institute.

CLASS OF NINETY-THREE
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

June 9, 1923.

PRESIDENT AND CORPORATION,
Massachusetts Institute of Technology,
Cambridge, Mass.

Gentlemen:

Appreciating the great need of more dormitories in order that the under-graduate life of the Institute may more adequately and more healthfully express itself, the undersigned, representing the Class of 1893, take pleasure in hereby tendering to you our pledge of $100,000 toward the erection of an additional dormitory building. In tendering this gift, we do so with the understanding and expectation that such a building, supplementing the present dormitory, be started at an early date approximating the 1st of September.

Very truly yours,

CLASS OF '93.

(Signed) FRANCIS W. FABYAN, *President.*
(Signed) FREDERIC H. FAY, *Treasurer.*

The proffered gift was accepted by the Institute authorities in due course and by them the project was at once put underway, as shown by the following letter from the Treasurer:

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

OFFICE OF THE TREASURER
201 Devonshire St., Boston.
September 13, 1923.

F. W. FABYAN, *President,*
F. H. FAY, *Treasurer,*
Class '93, M. I. T.

Dear Sirs:

In the absence of President Stratton, it is my pleasure to inform you that your letter of June 9, 1923, addressed to the President and Corporation of the Massachusetts Institute of Technology, has produced the desired effect.

Plans and specifications for a five-story dormitory unit, accommodating about seventy men, have been completed, and the contract for the building was awarded on the 6th instant. The contractors proceeded immediately with their preliminary work and had a steam shovel on the job on the 11th instant, and are pushing the work with all possible dispatch.

The cost of the building ready for occupancy, but not including furniture, is now estimated at $170,000 to $175,000. The contract for the furniture will be let in time so that the furniture may be ready to install as soon as the building is finished.

We sincerely hope that the liberality of your class will be an example to others, and that we may soon have the additional money required to build the whole six units of this dormitory group which our plans call for, and which are so greatly needed.

Allow me to express on behalf of Technology our great appreciation of your donation.

Yours sincerely,

(Signed) E. MORSS,
Treasurer.

Payments of the Class contribution were made in two installments, $50,000 on October 5, 1923, and $50,000 on March 1, 1924. The following letter was received from the Treasurer of the Institute in acknowledgment of the final payment:

MASSACHUSETTS INSTITUTE OF TECHNOLOGY.

OFFICE OF THE TREASURER,
201 Devonshire Street, Boston.
March 3, 1924.

FREDERIC H. FAY, *Treasurer,*
Class of '93,
200 Devonshire Street,
Boston.

Dear Mr. Fay:

On behalf of the Executive Committee I wish to express our great appreciation of the gift of $50,000, just received from the Class of '93, making the total donation $100,000. Further, I may say that this gift for dormitories is the most useful contribution which can today be made to Technology.

Yours truly,
EVERETT MORSS,
Treasurer.

The Corporation expressed appreciation of the gift.

June 9, 1924.

MR. FREDERIC H. FAY, Secretary
Class of '93, Massachusetts Institute of Technology
200 Devonshire Street, Boston.

My Dear Mr. Fay:

It gives me great pleasure to inform you that, at a recent meeting of the Corporation of the Massachusetts Institute of Technology, it was unanimously voted—

That the Corporation appreciates very highly the generous gift of the "Class of '93" dormitory and expresses to the Class as a whole, and to its individual members, its hearty thanks.

With warm personal appreciation, I am,

Yours very faithfully,

(Signed) JAMES P. MUNROE,
Secretary to the Corporation,
Massachusetts Institute of Technology.

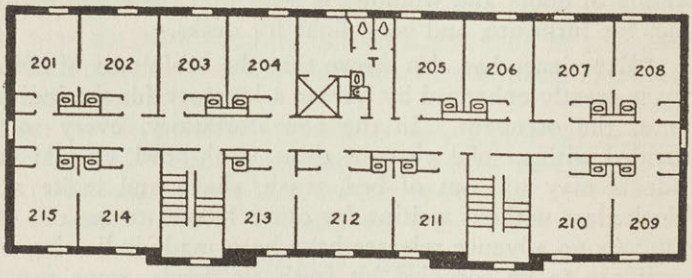
DESCRIPTION OF THE DORMITORY

The Ninety-Three Dormitory is the first unit to be built in an extensive dormitory group which has been planned by Wells Bosworth, '89, Architect of the New Technology, to be located on the Institute grounds in the rear of the Walker Memorial. In this group the Ninety Three Dormitory is the center section of the right, or easterly, wing. An extended description of the new dormitory appeared in *The Technology Review* for November, 1923, in an article by H. W. Brown, '15, Engineer of the Housing Company of Boston, which company had charge of the structural design and the supervision of construction of the building. To quote from this article, it appears that

> "In general appearance, the new dormitory will harmonize with the present buildings. The trim of the building is of limestone, with main wall surfaces of brick, similar to the Walker Memorial. As the unit at present under construction will be the center unit of a projected group of three, the ends will not be finished in brick or limestone, but will be of gunite—a Portland cement mortar, applied by compressed air with a cement gun.
>
> "The idea of simplicity, with a maximum of livableness, has governed the interior design. Since experience with the present dormitories has shown that most Tech students desire single rooms, the new dormitory has a great preponderance of single rooms, so arranged with communicating doors that they may be readily combined into suites of two or more rooms, should the occasion arise. The arrangement of the rooms and location of doors and windows is such that there will be ample room for furniture, and good light for desks.
>
> "Experience has also shown that the usefulness of a dormitory is greatly enhanced by having a lavatory for the individual use of the occupant. In the new dormitory, every room is provided with a solid vitreous china wash-bowl, so that future students may roll out of bed, wash, shave and make a nine o'clock class without waiting for other fellows to get out of the way. As no advance releases have been made indicating which rooms are to be occupied by fresh air fiends, some provision had to be made to prevent the freezing of pipes leading to these lavatories. For this reason, as well as because of simplicity of design, the steam radiators are placed beside the lavatories;

these will supply sufficient heat, even with the radiators shut off, to prevent freezing of the water pipes in the coldest weather. Incidentally, the radiators are placed in this position so that a towel rack may be placed immediately over them and at the same time be convenient to the lavatory. Thus the radiator plays several rôles—it heats the room, dries the towels, and humidifies the air. (The character of the humidification, depending as it does so much upon the personal equation of the occupant of the room, is not guaranteed in advance by the engineers.)

"Each room contains also an outlet for a New England Company telephone, connected directly with the outside, or through a dormitory switchboard. Two base plugs conveniently located for desks or bureaus, a light directly over the lavatory, and a center ceiling light, take care of any reasonable demand which is likely to be put upon the lighting system. At one time the engineers discussed the possibility of a direct connection for each room with a radio aërial, and, judging by the present dormitory, this might simplify matters of maintenance. A power circuit for each room was also discussed, but as it might easily lead to the necessity for additional units in the power plant and other complications, it was discarded in favor of a vertical system of distribution which puts each outlet in a room on a separate circuit; so that if Jones starts a pressing club, by blowing a fuse he may deprive Smith of one of his base plugs, but Smith will still be able to see his way to bed until Jones has tried all the outlets in his room.



[NEW] NINETY-THREE

TYPICAL FLOOR PLAN

"The layout of the showers and adjacent dressing rooms is interesting because of the provision that has been made for ventilation. We have all experienced the bathroom saturated with steam after some quasi-Turkish bath. In the new dormitory the shower room is separated from the dressing room only by a door which is open at the bottom. A duct which carries the supply pipes for the showers and toilets is made of sufficient size to allow it to act as a ventilator for the shower room. There is an opening into this ventilating duct near the ceiling so that air is drawn out of the shower room and replenished only with warm, dry air drawn in under the door from the dressing room. Thus, steam arising from the showers is drawn up the duct instead of filling the dressing room. Should the door to the dressing room remain open for any reason, all but excessive amounts of steam will be caught in the space between the top of the door and the ceiling, and carried out the ventilator. The draft in the ventilating duct is created by leaving the steam riser which it contains uncovered so that the heat from it will warm the air and thereby induce considerable draft. In addition, there is a ventilator on the roof at the head of this duct.

"The rooms are so arranged one over another that all of the supply pipes are vertical, and are carried in ducts similar to those for the toilets and showers, but smaller. Full utilization is made of whatever heat leaks through the insulation of these pipes, by placing ventilators at the tops of the ducts which carry hot pipes and leaving an opening into the corridor at each floor, so that the air in the corridors will be constantly drawn out, and replaced by air from the rooms or stair-halls. At the same time this layout simplifies the problem of installing the large amount of piping necessary for a lavatory in each room. In order to prevent the pipes carrying the cold water from becoming unnecessarily warmed by their proximity to the hot pipes, all cold pipes are carried in a separate duct from those carrying the hot pipes.

"The finish on the walls of the room is unique. Heretofore, dormitory builders have encountered considerable difficulty in constructing a wall surface which will be at once attractive and durable. The finish decided upon for the new dormitory consists of an outer surface of a good grade of burlap, made integral with the plaster by applying the burlap to the wet plaster, and working it in such a way that it becomes thoroughly imbedded.

The burlap then acts as a reinforcement for the plaster and makes it proof against ordinary wear and tear, at the same time giving a pleasing texture to the wall. Of course, if nails are driven into the plaster, the hole will remain when the nail is removed, but the burlap will prevent the plaster from falling out around the nail hole. Or, should a chair or other object hit the plaster, the burlap reinforcing will prevent serious damage to the wall (Field Day night excepted).

"Since the fibers of the burlap are well saturated with plaster, painting methods are similar to those used on an ordinary plaster wall, and no excessive amount of paint is necessary. The surface can easily be cleaned or freshened. The ceilings also are painted, although not covered with burlap.

"Floors present another serious problem in dormitory construction. Wooden floors laid over concrete are not altogether satisfactory, and linoleum has many objections. In this unit, 'Duraflex' floors will be used. These, judging from past experience, should give a most satisfactory covering. 'Duraflex,' when laid, has an appearance quite similar to linoleum, but it is harder than linoleum, and is not liable to the dents and marks which so quickly disfigure a linoleum floor. At the same time it is not so hard as to be tiresome or noisy. It is made in place, with no seams or cracks to open up; it is waterproof, and has the further advantage of allowing repairs to be made on any portion which becomes worn without necessitating replacement of the whole floor or the making of an unsightly patch."

In its structural features the Class dormitory embodies certain novel ideas in concrete construction which have been worked out by the research staff of the Housing Company, of which A. Farwell Bemis, '93, is president, and are here developed for the first time in a large scale building operation. The construction is termed Gunstone system because of the important part which the cement gun plays in the structure and the similarity of the result to a building carved out of solid stone.

A few dormitories, accommodating in all about 150 men, were provided by the Institute authorities as a part of the building program of the New Technology when the Institute moved to Cambridge. These but served to emphasize the need of more. The problem of the housing of the students has been acute ever since the Institute was established in its present location, but Technology

had no funds available for more dormitories until Ninety Three made the first gift for this specific purpose.

Under "Editorial Comment," *The Technology Review* for July, 1923, said (in part):

> "We had waited for more dormitories just long enough to be thoroughly relieved and grateful when the generosity of the Class of 1893 provided them. A lesser time, perhaps, and we might not have realized how much we stood in the debt of the donor; a greater time and we should have lost more valuable years without an adjunct which is vitally necessary to the healthy growth of Technology.
>
> "A dormitory is an educational vitamine. You don't have to have it to live, but if you continue to live in abstinence from it, the scurvy attacks you. Technology is today suffering because with a registration of 3000, goes a dormitory system housing not many more than 150. Five per cent.
>
> "Obviously by adding a unit that will house, in round numbers, 80 more, one does not solve the problem. For the 80 rooms we give hearty thanks, to be sure, but we also give thanks to the Class of 1893 for starting a snowball which (for is this not the right kind of snow?) must grow much larger before it ends its course.
>
> "Building operations are contagious. Marble chips from the mason's mallet fall often on a fertile soil. When we have broken ground for one new unit, it will, we fondly hope, make easier the beginning of the second, the third and the *nth*.
>
> "For surely at the present time, we need *n* dormitories. If ever there was an institution which needed to create a community of its own, Technology is that institution."

CLASS RECORD

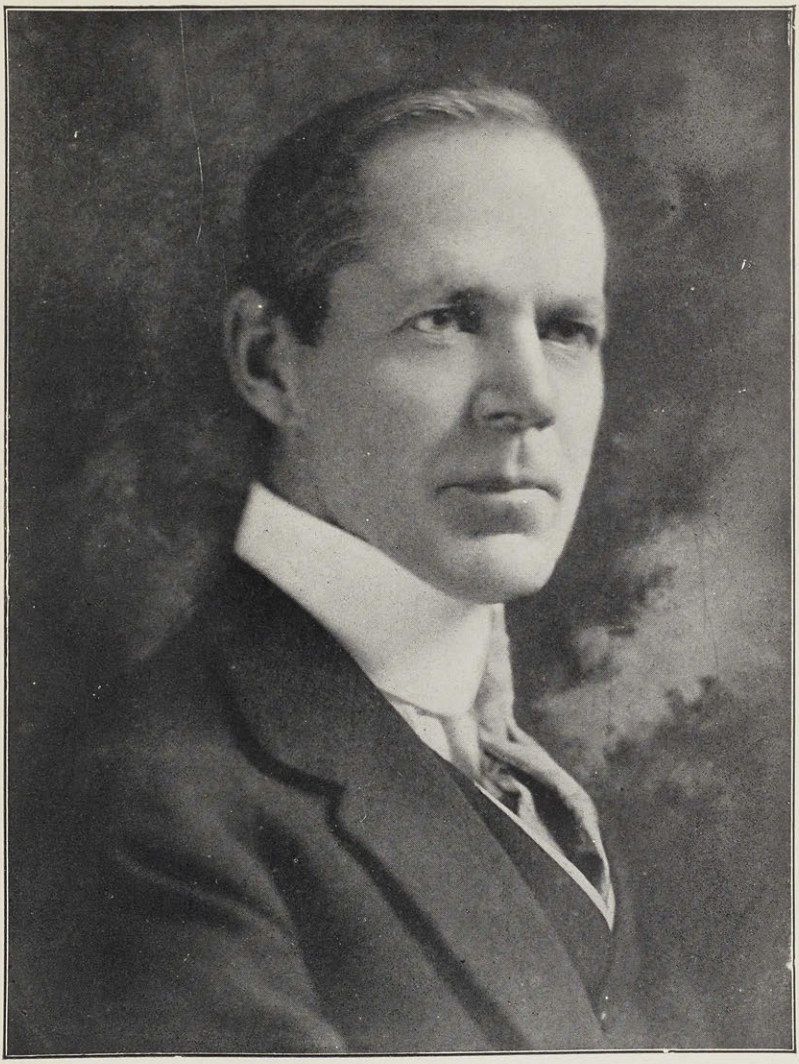
HONORARY MEMBERS

*RICHARD COCKBURN MACLAURIN, M.A.; LL.D.; Sc.D.

RICHARD C. MACLAURIN was elected to honorary membership in the Class soon after he took up his duties as President of the Institute, and by his good fellowship immediately won for himself a warm welcome from '93. His untimely death on January 15, 1920, following almost immediately after the successful raising of an endowment fund of $8,000,000 for the Institute, was a tragic occurrence which deprived the Class of one whom it delighted to honor, the community of one of its most useful citizens and the Massachusetts Institute of Technology of a great scholar and leader.

Mr. Maclaurin, the son of a Scottish clergyman, was born in Scotland, in 1870. His early education was received in New Zealand, where his family removed while he was still a child; he returned, however, to Great Britain for his university training and obtained the degree of Master of Arts from Cambridge University, in 1897. The following year he went back to New Zealand to serve as Professor of Mathematics in New Zealand University, which position he held from 1898 to 1905, acting during a considerable portion of that period as Chairman of the Faculty, an administrative position somewhat similar to that held by an American college president. He later served for two years as Dean of the Law School at the same university. Prior to his return to New Zealand, he had spent nearly a year in the United States and Canada studying their methods of education, and while Chairman of the Faculty at New Zealand University, he travelled extensively through the British Empire, France and Germany in order to study the educational systems of these countries. In 1907, he came to New York to fill the chair of Professor of Mathematical Physics at Columbia University, a position which he occupied for two years.

When he came to Boston in 1909, as President of the Institute at the age of thirty-nine, he had already obtained high distinction as a scholar in two distinct branches—law and mathematical physics, having received from the University of Cambridge in 1904, the degree of Doctor of Laws for his achievements in that field, and from the same university in 1908, the much prized degree of Doctor of Science for his work in mathematics and physics.



Richard Cockburn Maclaurin
1870-1920

While his accomplishments as an administrator before coming to Boston gave ample assurance of his ability as an executive officer, the problems facing him as President of Technology were of far greater difficulty than any he had previously overcome. He was personally unknown to the Technology faculty, alumni and students; he was a comparative stranger in the country and in Boston; his training had been in pure rather than in applied science; he was entering upon his duties at one of the most critical periods in the history of the institution, a period when great material accomplishments were required in order that the Institute might maintain its prestige and continue its growth.

The impressive group of buildings of the New Technology in Cambridge, finished in a little more than seven years after he assumed office, furnishes striking evidence of his success in solving one of the difficult problems which confronted him when he entered upon his duties as President. The equally important task of raising the great fund of $8,000,000 to maintain the Institute, with its unprecedented growth, in a period of war inflated prices forms merely another indication of his power of achievement in material things. It was, however, not such tasks that interested him primarily, in spite of his wonderful accomplishments, but rather the further development of the intellectual side of the Institute, which he looked upon as his next problem and which he felt himself especially fitted to undertake.

No man could have accomplished such noteworthy results in the few years that were given to Mr. Maclaurin without possessing unusual characteristics. His sincere character and his sound judgment upon men and affairs inspired confidence in all who knew him. These qualities coupled with his unassuming manner and kindly humor won for him friends and admirers wherever he went and enabled him to carry out with success policies which others would have found most difficult to accomplish.

In closing, the writer wishes to express the great personal loss which he felt upon the death of one who, during an acquaintanceship extending over a period of eleven years, inspired in him a continually increasing sense of admiration and affection. He believes that in this he is also expressing the feeling of all who were associated with Mr. Maclaurin during his life in Boston.

CHARLES M. SPOFFORD.

PROFESSOR FRED PARKER EMERY

Dartmouth College, Hanover, N. H.

PROFESSOR EMERY was born at Pembroke, New Hampshire, April 11, 1865. He was graduated from Dartmouth in 1887, with degree of A.B.; in 1890, receiving the degree of A.M. He also attended the University of Paris, 1891-92; and the University of Berlin, 1892-93. From 1887-91, he was instructor of English at the Institute, leaving to become associate professor of English at Pennsylvania State College, where he stayed for one year before going to Dartmouth, where he has been ever since, as assistant professor of rhetoric and oratory for one year and professor since 1895.

He is a member of the K. K. K. and Sphinx fraternities at Dartmouth and Phi Beta Kappa; and the St. Botolph Club of Boston. He is the author of "Notes on English Literature" (1891).

He married Mary E. Chesley of Amesbury, Massachusetts, June 26, 1889.

DR. HENRY SMITH PRITCHETT

President, The Carnegie Foundation for the Advancement of Teaching

HENRY S. PRITCHETT was born at Fayette, Missouri, April 16, 1857. He was graduated from Pritchett College, Glasgow, Missouri, in 1875; and in 1894, received his Ph.D. from Munich. Following graduation, he was a student with Asaph Hall in United States Naval Observatory, 1876, and assistant astronomer in 1878. In 1880, he became astronomer at Morrison Observatory, Glasgow, Missouri; in 1882 he was astronomer on the Transit of Venus expedition to New Zealand. From 1883 to 1897, he was professor of astronomy and director of the observatory at Washington University, St. Louis, Missouri. From 1897 to 1900, superintendent of the United States Coast and Geodetic Survey.

From 1900 to 1906, Dr. Pritchett was president of the Institute, since which time he has been president of the Carnegie Foundation for the Advancement of Teaching.

The honorary degree of LL.D. was conferred upon him by Hamilton College in 1900; University of Pennsylvania, Harvard, Yale, 1901; Johns Hopkins, 1902; Williams College, University of Michigan, 1905; University of Toronto, 1906; Brown, 1908; Miami, 1910; University of Vermont, 1911; Washington University, 1915; McGill, 1917; Western Reserve University, 1918; Dalhousie, 1919;

that of Sc.D. from Tufts College, 1905, Stevens Institute of Technology in 1908; and that of Litt.D., Whitman College, 1919.

He is a fellow of the American Academy of Arts and Sciences, American Association for the Advancement of Science; member of the American Philosophical Society; director, Atchison, Topeka & Santa Fe Railway Company, American International Corporation, trustee, Carnegie Corporation, Metropolitan Museum of Arts, etc. He is the author of various scientific papers.

In June, 1900, he married Eva McAllister of San Francisco. His home is at 399 Park Avenue; his office, The Carnegie Foundation at 522 Fifth Avenue, New York City.

SAMUEL WESLEY STRATTON

President, Massachusetts Institute of Technology

DR. STRATTON was born in Litchfield, Illinois, on July 18, 1861. He received his B.S. degree in mechanical engineering at the University of Illinois in 1884. He remained at the University until 1892, in succeeding positions as instructor of mathematics, assistant professor, professor of physics and electrical engineering. From 1892 to 1901, he was assistant, associate and professor of physics at the University of Chicago. In 1901, he became director of the National Bureau of Standards at Washington, D. C. He became president of the Institute on June 11, 1923.

He has received honorary degrees—D.Eng., University of Illinois, 1903; D.Sc., Western University of Pennsylvania, 1903, Cambridge, 1909, Yale, 1919. He is an honorary member of the Sigma Xi and Tau Beta Pi societies.

Dr. Stratton has always been interested in military tactics, serving as ensign, lieut. jr. grade, lieut. and lieut-commander of the Illinois Naval Militia from 1895 to 1901; lieut. U. S. N., during the Spanish-American War, May to November, 1898; commander, commanding D. C. Naval Militia, 1904-12. He was a member of the Interdepartmental Board of the Council of National Defense, a member of the National Advisory Committee for Aëronautics, the United States representative on the International Committee of Weights and Measures, a member of the Interdepartmental Board on Ice Observation and Patrol, and a member of the American section of the Standardization Committee, International Chamber of Commerce. He is a member of the American Institute Electrical Engineers, American Society Mechanical Engineers, American Phys-

ical Society, American Philosophical Society, American Association for the Advancement of Science, National Academy of Sciences. His Washington clubs are Cosmos, Chevy Chase, and Army and Navy. His home is the president's house at Technology. He is unmarried.

MEMBERS

ABBOT, JOHN CAMERON (1889-91) VI

Manufacturer; Vice-president and Agent — Abbot Worsted Company, Graniteville, Massachusetts.

Married, January 12, 1898, Anna M. Fletcher. Children, John Fletcher, Robert Fletcher.

Home, Main Street, Westford, Massachusetts.

ABBOT is in the same business he was in at the time our 1909 Catalogue was published. Before studying at the Institute, he was a student at the Worcester Polytechnic Institute.

ABBOTT, FREDERIC BASSETT VI G

General Electric Company, River Works, West Lynn, Massachusetts.

Assistant Engineer Drafting Department, General Electric Company.

Born, October 23, 1870, Lynn, Massachusetts.

Married, September 12, 1900, Alice Goodsell Dunn. Children, Elizabeth, Frederic Everett, Lewis Dunn, Katherine, Eleanor.

Home, 27 Nahant Place, Lynn, Massachusetts.

ABBOTT has always been located at Lynn, first in the shoe industry working as a shoe cutter in 1893-94, then manufacturing shoes from 1895 to 1901. In 1902, he became connected with the General Electric Company, with which company he is still connected, as assistant engineer in the drafting department. His chief diversion is automobiling. He is a member of American Institute of Electrical Engineers; Sons of American Revolution; and Laymen's League.

ABELL, ADELAIDE M.; B.S. (1889-90, 1892-93, 1908-09) VII

Technical High School, Providence, Rhode Island.

Teacher of pure and applied science.

Born, November 18, 1870, St. Albans, Vermont.

Home, 22 Woodbury Street, Providence, Rhode Island.

BESIDES the years as a special student at Tech, Miss Abell was graduated at Wellesley College with the B.S. degree in 1894.

After eight years of philanthropic work Miss Abell studied a year and taught five years at Northfield Seminary; that was followed by two years more of study of pure and applied science, which she has since taught at the Providence Technical High School. Miss Abell also studied at the Harvard Summer School in 1907, Chicago University in 1907-08, and at Columbia Summer School in 1908. She pays to Tech training the tribute of giving her the foundation for her work in scientific instruction. It may also be responsible for a first year science book now in manuscript, ready for her publisher. Her diversions are concerts, the theatre and housekeeping. She is a member of the New England Association of Home Economics, Rhode Island Association of Home Economics, and several teaching organizations; also of the Plantations Club of Providence.

*ADAMS, FRANK WILLIAM
Died March 12, 1900.

*ALBEE, ORTON WHEELOCK III G
Deceased.

LIEUTENANT-COLONEL ORTON W. ALBEE died at the Marlboro Hospital, Marlboro, Mass., August 4, 1919. He was still in the active service of the Ordnance Department of the Army, which he had entered in 1917, although at the time of his death he had been absent from duty for about six weeks on sick leave and his death was attributed directly to the strain of his war work. As his associates of the Detroit Engineering Society said of him, "He died as surely in the service of his country as though his death had been on the field of battle."

Albee was born at Marlboro, November 21, 1871, and was one of four Marlboro boys to enter Tech with the class of '93, the others being J. F. Hinckley, J. W. Howe and F. H. Fay. After graduation from the course in mining engineering he immediately secured a position as assistant to the Inspector of Ordnance, U.S.A., at the Midvale Steel Works, Philadelphia, a position which he held for four years. From 1897 to 1900, he was Superintendent of the Ordnance Department of Benjamin Atha & Illingworth Company of Newark, New Jersey, and this being the period of the Spanish War, his firm manufactured ordnance for auxiliary cruisers, including the *Harvard* and *Yale*. He then was for short periods with the

American Steel Casting Company at Thurlow, Pennsylvania, and with the Bridge Department of the New York Central & Hudson River Railroad Company.

In 1902, he became associated with C. C. Bothfeld (Tech '84), consulting engineer at Detroit, on structural and bridge designing and general inspection of materials of construction. Early in 1905, while associated with Mr. Bothfeld, the two heard rumors of the finding of silver along the line of a newly built railroad in the backwoods of Ontario. After some investigation, the report seemed to be confirmed and Messrs. Bothfeld and Albee and two or three others organized a prospecting party and went into what was then an Ontario wilderness. The prospectors were rewarded for their efforts by the discovery of a vein of silver and Albee had charge of the development of the property, which was named the Violet Mine. Although his resources were the most primitive, the undertaking was successful from the start. Others came into this region and the town of Cobalt, within which the Violet Mine was located, sprang up almost overnight. Albee and his associates sold out the mine late in the fall of 1906, when the Cobalt boom was at its height. While at Cobalt during the winter of 1905-06, Albee had a severe illness from the effects of which he probably never entirely recovered and which doubtless was a contributary cause to his death from overwork in war service. From 1907-09 Albee devoted most of his time to the practice of consulting mining engineering, mostly in silver and copper, and he reported upon properties in various parts of the west and south. Upon the death of Mr. Bothfeld in 1909, Albee took over his consulting practice and continued this practice with headquarters at Detroit until he entered the Army.

When the United States declared war in 1917, although well above draft age and with a family to support, Albee at once offered his services to the government and was commissioned major in the Ordnance Reserve Corps on July 8, 1917. His early experience in the inspection and manufacture of ordnance and his thorough training in metallurgy, particularly in iron and steel, made his services of distinct value to the government. He was called into active service by the Ordnance Department on September 19, 1917, and until March 15, 1918, was traveling supervisor with headquarters at Washington, D. C., his work consisting of the organization of the inspection forces at plants manufacturing ordnance for the U.S. Army, both in this country and in Canada. On March 15, 1918, he was appointed Inspection Manager of the Toronto District Of-

fice, which district covered the whole of Canada and included all plants in that country manufacturing ordnance for the U.S. Army. Here he had entire charge of the production, inspection and supply from over 300 munition plants manufacturing shells ranging from 3 inches to 12 inches in size, together with all sizes of fuses, forgings and ingots. On October 8, 1918, he was promoted to the rank of lieutenant-colonel. The contracts placed by the United States War Department at Canadian plants and of which Albee was in charge amounted in value to over $400,000,000. Of these, contracts to the amount of $300,000,000 were still in force and uncompleted at the time of the Armistice. On January 2, 1919, Albee was appointed Salvage Officer and District Chief of the Toronto District and Canadian Contract Advisor, and, as the direct representative of the Secretary of War he was entrusted with the duty of the settlement of all these uncompleted Canadian contracts. His duties were in a way diplomatic as well as military, for all these contracts had been placed by our government in a foreign country through the agency of the British Imperial Munition Board and in many cases our government had advanced money on capital account for the enlargement of these Canadian plants. Into the tremendous and complicated task of the adjustment of these war contracts Albee put all his heart and soul. By the end of June his work in Canada was successfully completed, but it had made of him almost a nervous wreck. He was ordered on sick leave and went to Marlboro, Mass., to recuperate, where he died.

A memorial published by the Detroit Engineering Society speaks of him as one of the most esteemed and respected members of the Society and adds "all who dealt with him admired his ability as an engineer and those who knew him well honored and loved his integrity and wholesomeness as a man. He was one whom it was a privilege to have as a friend."

Albee was active in the Detroit Engineering Society of which he was president in 1915-16, and also in the Detroit Board of Commerce. He was a member also of the American Railway Engineering Association, the Detroit Club, Detroit Athletic Club and North Channel Club.

Lieutenant-Colonel Albee left a widow (formerly Ella M. Littell, to whom he was married January 7, 1899) and a daughter, Dorothy Lyle.

ALDEN, HERBERT WATSON II G

Timken-Detroit Axle Company, Detroit, Michigan.
Chairman of Board of Directors.
Born, 1870, Lyndonville, Vermont.
Married, 1893, Madelaine Grier. Children, Horace Allen, Douglas Grier, Madelaine.
Home, Detroit Athletic Club, Detroit, Michigan.

AFTER leaving the Institute Alden spent two years with the American Projectile Company, Lynn, Massachusetts, in charge of experimental work. In 1895 he became assistant engineer of the Pope Manufacturing Company and Electric Vehicle Company of Hartford, Connecticut, and in 1902 was made chief engineer on automobile work. From 1906 to 1909, chief engineer, Timken-Roller Bearing Axle Company at Canton, Ohio. Since 1909 with the Timken-Detroit Axle Company as chief engineer, vice-president and now chairman of the Board of Directors.

He entered the Ordnance Department in June, 1917, as major in charge of tank design for the American Army; in France, Belgium and England on same work, winter of '17 and '18; Lieutenant-Colonel from January, 1918, to discharge in February, 1919. Alden received the Distinguished Service Medal for exceptionally meritorious and conspicuous service, first as American Engineering Representative at the conference called to design the Anglo-American Mark VIII tank, and later as being directly responsible for the design of a new, valuable and easily obtained implement of mechanical warfare, the fast three-ton tank, susceptible of production in America in such quantity as to constitute a most material contribution to the effective fighting power of the United States Army. He is now Colonel O.R.C., Ordnance Department.

In his early years after graduation, he was a member of the Naval Brigade in Boston, and when he afterwards went to Hartford he was a charter member of the second division.

For interesting experiences he made trips in a Zeppelin in Germany in 1913, has made trips in a spherical balloon, and many in air planes.

As to benefit of Tech training he says "you bet" and that he has had too little contact with '93 men since graduation.

He is now serving as a member of the Rapid Transit Commission of the City of Detroit; was president of the Society of Auto-

motive Engineers in 1912 and is at present serving again in that office.

Also member, American Society of Mechanical Engineers, Army Ordnance Association; Delta Kappa Epsilon and Engineers' Clubs of New York; Detroit Athletic Club, Detroit Club, and others.

For amusements and hobbies he has tennis, billiards — and four grandchildren.

ALEXANDER, FRANK WEST; A.B., A.M. (1890-91) V

East Weymouth, Massachusetts.
Teacher of Mathematics, East Weymouth High School.
Born, March 14, 1860, Richmond, Maine.
Unmarried.
Home address: Richmond, Maine.

BEFORE taking a special course at the Institute, Alexander was graduated from Bowdoin College with the degrees, A.B. in 1885 and A.M. in 1888. He was principal of the High School at Eastport, Maine, 1885 to 1888; East Providence, Rhode Island, High School, 1890 to 98; and at Georgetown, Massachusetts, from October, 1899, to July, 1919. He took a vacation of a year at his home in Richmond, Maine, and has now completed his fourth year as teacher of mathematics at the High School in East Weymouth. During the war he was a member of the local draft board at Richmond.

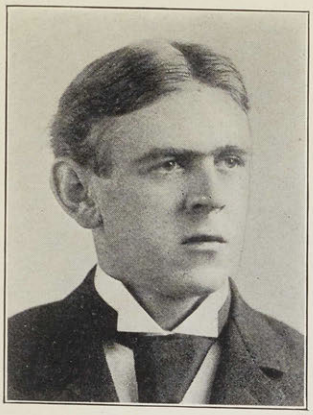
He is a member of Theta Delta Chi fraternity.

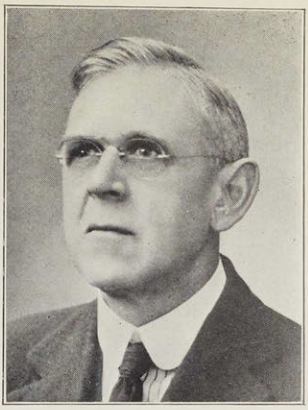
His recreations are farming and music.

ALLEN, CHARLES VERNON VI G

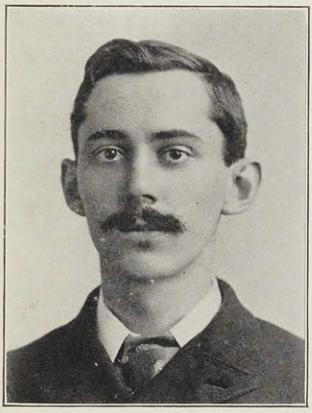
Apartado 78 Bis, Mexico, D. F.
Manager for Mexico, Westinghouse Electric International Company.
Born, July 7, 1869, at Holliston, Massachusetts.
Married, January 2, 1894, J. Abigail Jones. Children, Howard Brigham, Helen Louise.
Home, Ave. Chapultepec 227, Mexico, D. F.

ALLEN has been with the Westinghouse Company ever since leaving Tech in 1893. He entered the apprenticeship course of the Company in June, 1893. In following years he passed through various departments, ten years at Poughkeepsie and two years in New York, acquiring experience for export work which he entered in 1905, in the New York office. Allen made his first trip to Mexico

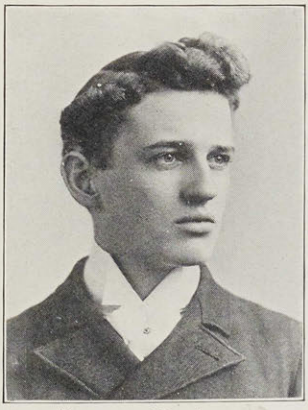




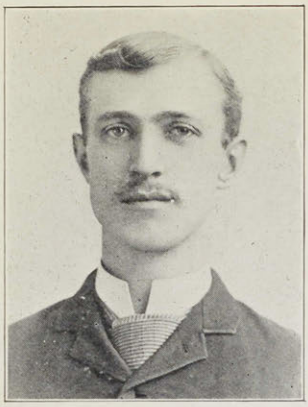
Frederic B. Abbott

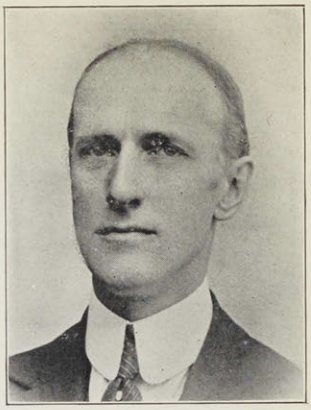


*Orton W. Albee

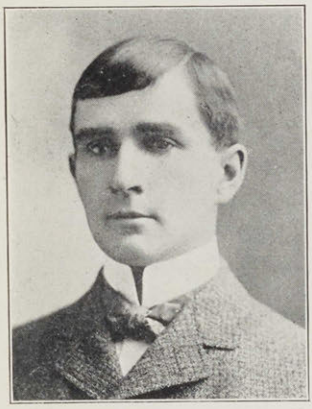


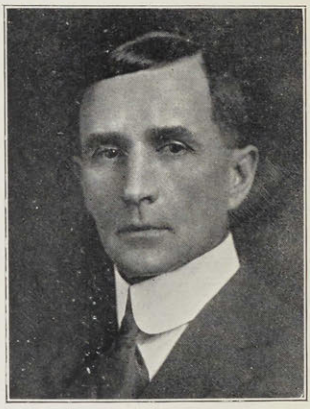
Herbert W. Alden





Charles V. Allen





John Ormsbee Ames

E. L. Andrews

Herbert Armstrong

in 1904 and since 1905 has been the representative in Mexico of the Westinghouse Company. In December 1921 he was appointed manager of the Westinghouse Electric International Company branch, established in Mexico at that time. He has written various articles for scientific papers which have been reprinted into pamphlets for use by the Company. Allen writes:

"We have some 17 Tech fellows here in this city and of all I seem to be the oldest graduate. We have tried to form a Tech club in connection with the University Club, of which I am one of the Directors, but have not been able to get enough together yet to organize a section as have Harvard and Yale."

In reply to our question of what has been accomplished, Allen says "a living for self and family which is something these days. While it might be possible to retire, am afraid to do so for the reason that having led such an active life, I fear I would not know what to do with myself, and furthermore golf might not be so interesting if one could play it every day even with the perfect climate we have here.

"Three years ago I was in Santiago, Chile, for a few months with Mrs. Allen. There we found that Percy Thomas, (better known to our class as 6 H Thomas) had preceded us and we seemed to fall in often with those who had met him during his previous visit. Even a badger fight had been pulled off in his honor, I learned at one of the mines. In Lima, Peru, I met Hutchinson, '92, also Delta Upsilon, whom I had not seen for some 25 years. We could not have changed so very much, for we each recognized the other.

"This is an invitation for all '93 men who may stray down to this revolutionary country to be sure and look in on me at the Westinghouse office. Ask anyone where it is and if they should not know your Spanish, look in the phone book and call me and I will come and pick you up."

His hobby is GOLF.

He is a member of the American Society of Electrical Engineers and of professional clubs in Mexico City; Delta Upsilon fraternity; Masons; University Club, American Club and Rotary Club, Mexico City. His son attended Tech, class of '18.

ALLEN, ORREN (1889-92) VI

207 South Broadway, Denver, Colorado.

For several years Allen has been at the above location.

AMES, JOHN ORMSBEE (1889-1890)

50 South Main Street, Providence, Rhode Island.
Cotton Manufacturer, Member of Firm of Goddard Brothers.
Born, January 9, 1872, Providence, Rhode Island.
Married, November 29, 1900, Madeleine Livermore Abbott.
Home, 121 Power Street, Providence, Rhode Island.

ALL of Ames' business connections have been in Providence, Rhode Island. He entered the employ of the Fletcher Manufacturing Company in 1890 as clerk, was made secretary in 1895, agent in 1902, and treasurer in 1912. In 1912 he became treasurer of the International Braid Company, and in 1916 a member of the firm of Goddard Brothers.

He is president of the International Braid Company of Providence; vice-president of the Providence Institution for Savings; the Berkeley Company and the Blackstone Company; director: Providence National Bank, Fireman's Mutual Insurance Company, Union Mutual Insurance Company, Morris Plan Company of Rhode Island, Providence Gas Company and Rhode Island Power Transmission Company.

He was a member of the Rhode Island State House Commission and (1915-20) Federal Trustee of the Rhode Island Company (Providence Traction System).

In the Spanish War Ames volunteered and became first lieutenant of Infantry, Commanding Company A, 1st Regiment Infantry, Rhode Island Militia, which he had assisted in organizing and which company was never sent out of Rhode Island. During the Great War he served as treasurer for Rhode Island of the United War Work Campaign, Inc., and was a member of the executive committee of the Liberty Loan Committee of Rhode Island. He is a member of Delta Psi fraternity; Hope Club, Agawam Hunt Club, Squantum Association, Rhode Island Chapter of the Society of the Cincinnati, Providence, Rhode Island; Racquet and Tennis Club, and Merchants Association, New York City. Tennis, in which he has won high honors, and Chess are his hobbies.

ANDREWS, EDMUND LATHROP VI G '94

5753 Dorchester Avenue, Chicago, Illinois.

OUR records show Andrews as having been located in New York City with the American Telephone and Telegraph Company in 1909; at Amerstam, New York, in 1914; later at Chicago, Illinois;

again in New York City in 1921. Then we lost him for a while until, through Kales '92, we learned that he had returned to Chicago, and was at the above address.

ANDREWS, GEORGE WILLIAM (1890-92) IV
900 Rose Building, Cleveland, Ohio.
Architect.
Born, 1866, Cleveland, Ohio.
Married, April 4, 1895, Gertrude Belle Owen. Children, Helen Elizabeth, George Douglas.
Home, 14633 Euclid Avenue, Cleveland, Ohio.

ANDREWS is a member and former vice-president of the Cleveland Architectural Club.

He has been practicing architecture at his present address for more than fifteen years.

Andrews has two grandchildren.

*ANTHONY, JOHN GOULD III G
Died January 19, 1901.

HE was born in Cincinnati, September 1, 1871. As a boy he attended the public schools of that city, and remained therein until he had completed the three years' course at the high school. In September, 1889, he entered the Institute as a member of the class of '93, and was graduated with that class in the course of Mining Engineering. In the summer following his graduation he attended the Summer School in Mining Engineering at Chicago, and thence went to Buckingham, Canada, where he was engaged for three months in testing graphite. Upon the completion of this work he took up his residence in Philadelphia, where he spent two years as an assayer.

In March, 1896, he left Philadelphia, and took a position as assayer and assistant chemist for the Boston & Montana Copper Company at Great Falls, Montana, and remained in that position until August, 1899, when he went to Prescott, Arizona, as chemist for the Val Verde Copper Company, and stayed there until August, 1900, leaving to accept a position at Eureka, Colorado. He had been there but a short time when he was sent to Silverton, Colorado, as assayer for the Kendrick & Gelder Smelting Company. Soon after his arrival at Silverton he was stricken with typhoid fever, and died upon the 19th of January, 1901, in his thirtieth year.

Always studious and diligent while at the Institute, he went into the world of business with a strong determination to continue his studies and to round out more fully the education he had already acquired. True to this purpose, he purchased the latest and best professional books, and in every way strove to perfect himself. Of modest and refined tastes, he sought only the best associations; and in the small mining towns to which his work called him he was always a welcome guest at the best homes, and, whenever possible, an ardent worker in the church.

In his death the class of '93 has parted with a loyal member, one who during his college career was always at the class meetings, and although never actively connected with the administration of class affairs, was, nevertheless, greatly interested in whatever was before the class for consideration; and his influence was ever exerted for the good of the organization.

The following spontaneous tribute from one who was well acquainted with him shows very clearly the kind of man he was:

"IN MEMORY OF JOHN GOULD ANTHONY"

"The untimely death of Anthony was a shock and a grief to those who knew him well, and it is a pleasure and duty to bear testimony of his genial, manly nature. I knew him in Philadelphia during 1894 and 1895. We were both exiles from home, and my happy acquaintance with him was one of those for which we have so often to thank the dear old Institute. It was at that period of life when dreams of conquering the world of business are rudely dispelled, and the best energies and qualities of men are exerted to the utmost to learn things and gain a foothold. Many good and true men are bitter and skeptical during this period, but it must be recorded of this classmate of ours that never did his courage falter or his sunny nature lose one ray of its faith and helpfulness to others. He was active and useful in his church circle, a constant thinker on subjects concerned with the promotion of good citizenship, and a devoted lover of his Alma Mater. In this latter connection it should be mentioned that he tried at one time to secure space in some of the Philadelphia newspapers for Technology news, in order to advertise the Institute. He wrote a long description of his journey west in 1896, which was circulated among his friends. It was unusually complete and interesting, and as such displayed considerable literary merit.

"While we stand here, with all courage and willingness to endure

the trials and sorrows that are our inheritance, may we not say that he is happy in being spared them, and that our lives have been better by having known this true-hearted gentleman and friend."

J. A. E., '93.

ARMSTRONG, HERBERT (1890-92) II

IN October, 1919, the Secretary was notified that Armstrong was in Pasadena, California, — the first change of address for a good many years.

In 1909, when Armstrong was last heard from directly he was located at Detroit and engaged in the manufacture of dress fabrics.

For the 1909 Catalogue he wrote that he had "spent about ten years becoming familiar with the different processes connected with the manufacture of textiles," and that his amusements consisted of "trying to figure out what the fickle mind of the feminine portion of the population will demand next in the way of dress patterns."

ASHTON, FRANK GEORGE (1889-92) II

200 Devonshire Street, Boston, Massachusetts.
Engineering Assistant to President, Barry-Cashman Company, Inc.
Born, May 26, 1871, Boston, Massachusetts.
Married, September 21, 1907, Meta C. Marx.
Home, Wayland, Massachusetts.

ASHTON was signal engineer for the Boston and Maine Railroad after he left the Institute; later was engaged in signal engineering work at St. Louis, Missouri; mechanical engineer for the Ashton Valve Company, and Assistant Engineer with Westinghouse, Church, Kerr & Company, New York; and has for some years been located in Boston.

*ATKINS, GEORGE HERBERT (1892-93)

Died in April, 1898.

ATKINS received injuries to his back while playing football at Tech which resulted in spinal meningitis from which he never fully recovered. He travelled through the West in search of health and while in California he got the Klondike fever and was lost in Chilcoot Pass in the great snow slide of 1898 while on his way to the Klondike. (From 1909 Catalogue.)

BADGER, FRANK SIDNEY I G

9 Cloak Lane, Cannon Street, London, E. C. 4, England.

Hydro-electric Engineer, Hydraulic Engineer, J. G. White & Company, Ltd., Consulting Engineer, Consolidated Construction Company, Ltd.

Born, December 27, 1867, Boston, Massachusetts.

Married, June 4, 1897, Belle Randall. Children, Francis Randall (deceased), Frank Sidney, Jr.

Home, 66 Castletown Road, West Kensington, London, England.

FOLLOWING graduation Badger spent the summer of 1893 as chief of party for H. B. Burley, surveyor, Manchester, New Hampshire. September, 1893, to April, 1899, assistant engineer with the Proprietors of Locks and Canals on the Merrimack River, Lowell, Massachusetts, and Nashua, New Hampshire; also hydraulic engineer and claim agent for a large water power company. April, 1899, to April, 1901, assistant engineer with the Continental Filter Company of New York City, in charge of construction of Middletown filter plant, 3,000,000 gallons capacity, and made preliminary plans for Little Falls filtration plant, 30,000 gallons capacity. May, 1901, to January, 1903, assistant engineer for Lewis E. Hawes, Boston, in charge of construction of waterworks and dams in New England. February to August, 1903, assistant engineer U. S. Reclamation Service, Washington, D. C., Nevada and Arizona, and surveying Lahontan reservoir site.

September, 1903, to March, 1906, assistant engineer for Samuel Storrow (Tech '90) Los Angeles, California, on the design and construction of hydro-electric plant for Walla Walla, Washington; investigations and reports for Pacific Gas and Electric Company, locating upper half Truckee Carson Canal, locating part of Power Canal, Roosevelt Project. April, 1906, to April, 1908, principal assistant engineer and acting chief engineer, Monterey Waterworks and Sewer Company, Monterey, Mexico, on design and construction of waterworks and sewers for a city of 100,000 and investigation of several hydro-electric projects, and consulting engineer, Monterey Railway, Light and Power Company, Ltd., an associated company, making reconnaissances for hydro-electric power and locating the Blanco River plant of 25,000 horse power and 1,400 feet fall. In 1908, being obliged to leave Mexico on account of illness, he returned to private practice in New England, making hydro-electric studies in New Hampshire.

November, 1909, to date, hydraulic, hydro-electric and acting chief engineer, J. G. White & Company, Ltd., London. In this position his work has taken him to various parts of Argentina, Uruguay, Chile, Brazil, Colombia, Ecuador, Burma, Australia and New Zealand.

During the war, as executive head of J. G. White & Company's staff of seventy in London, he was engaged in inspecting and shipping from England to France 5,000 tons per week of construction materials, etc., for the A. E. F.

Badger writes:

"Have roughed it from the sea shores of tropical Brazil and Colombia to the waist-deep snows 16,000 feet up in the Andes, making hydro-electric explorations in many wild and interesting regions.

"My training at Tech enabled me to qualify for the one kind of work for which I had the strongest liking. Everywhere I have found the reputation of M. I. T. a strong asset, especially as I went farther and farther from Boston. Of necessity my contact with Tech men has been very slight, especially in the last twenty years, and I have yet to see the New Technology.

"Have accomplished little as yet but am still going strong and can point to a stack of reports on projects in comparatively unknown countries and can recall endless beautiful scenes and stirring adventures from half drowning on the Chinese frontier to shooting guanaco in the Andes and 'gators on the Magdalena."

Badger has written numerous technical reports on hydro-electric projects. He is a member of the Boston Society of Civil Engineers and the American Association of Engineers. Gardening, camping and swimming are his hobbies.

BAKER, FREDERIC WALLACE II G

Born, September 29, 1870, Boston, Massachusetts.

Married, June 22, 1903, Margaret H. Wilson. Children, Richard R., Margaret, John Frederic.

Home, Claymont, Delaware.

AFTER graduation, Baker went over to Scotland and took the Naval Architect Course at Glasgow University. Then travelled most of the time until 1897, since when he has been almost continuously employed in the building of ships with such firms as William Cramp & Sons, Baltimore Dry Dock Company, United States Navy Yard, Mare Island, California, Newport News Shipbuilding Com-

pany, The New York Shipbuilding Company, The Crescent Shipyard, The Navy Department at Washington, The Lake Torpedo Boat Company, The Jackson and Sharp Plant at Wilmington, Delaware, The Bath Iron Works, Ltd.

His greatest enjoyment is in the building of ships.

In the Spanish American War, Baker was commissioned Lieutenant, Engineer Corps, United States Navy, going to Manila in the U. S. S. *Monterey*. In the World War he helped build destroyers for the United States Navy at the Bath Iron Works, Ltd.

He is a member of the Institute of Naval Architects, London, England, and the Society of Naval Architects and Marine Engineers, New York.

BALCH, FRANCIS duPONT (1891-93) IV

11 West 10th Street, Wilmington, Delaware.

Insurance.

Born, July 15, 1872, Washington, D. C.

Married, April 26, 1905, Gertrude Leavitt. Children, Gertrude Howland, Franklin Leavitt.

Home, 1007 Park Place, Wilmington, Delaware.

FROM 1893 to 1897 he was draftsman in Boston, Baltimore and Philadelphia architects' offices; from 1897 to 1900 general inspector for a Philadelphia fire insurance agency; from 1900 to 1903, automatic sprinkler inspector and special agent for the Underwriters Association of the Middle Department, Philadelphia, Pennsylvania, and since 1904 he has been engaged in the insurance business. He is a member of the University Club, Philadelphia; Society of Colonial Wars; Delta Upsilon fraternity; National Fire Protection Association and Fire Insurance Society of Philadelphia.

His hobbies are architecture, old furniture and golf.

*BALLARD, HETTY ORRILLA XII G

Died December 20, 1897.

MISS HETTY ORRILLA BALLARD, XII (Geology), the only woman graduate of the class, died at Colorado Springs, Colorado, December 20, 1897. Miss Ballard was a niece of Professor Crosby, of the Institute, in whose family she lived for several years. After graduation, so long as her health would permit, Miss Ballard was assistant in palaeontology in the Museum of the Boston Society of Natural History.

BARBOUR, MINARD TOWNSEND II G

Retired.
Born, December 31, 1871, St. Charles, Illinois.
Married, April 8, 1901, Carrie H. Hofmeister.
Home, Harvard, Illinois.

"UPON leaving the Institute in 1893, immediately entered the employment of Crane Elevator Company, Chicago, Illinois. Later merged into Otis Elevator Company. Began work as draftsman. Year or two later became assistant to purchasing agent. Then few years later entered Sales Department of Otis Elevator Company, Chicago. Transferred to St. Louis office 1899. In 1900 managed New Orleans office — 1901 Kansas City office — 1902 Minneapolis office — 1902 and 03 Montreal, Canada, office — 1903 Treasurer Otis Fenson Elevator Company, Hamilton, Canada. 1904 Assistant to Sales Manager, Chicago office, Otis Elevator Company. Remained in the business till Fall, 1918, a period of 25 years. Owing to ill health returned at that time to country residence on Lake Geneva, Wisconsin. Live here about eight months of year and spend other four in South or West. Will spend winter of 1922-23 in Honolulu, Hawaii. Devote time in summer to garden, chickens and general outdoor work. Have not had a spectacular career nor startled the world by any great accomplishments. Have just made fair progress — and now live the simple life." In the spring of 1924, Barbour took up permanent residence in Harvard, Illinois, but his allegiance to the Institute has not weakened.

*BARKER, PERCY LEWIS (1889-90)

HIS death in December, 1900, was reported. Although never verified, the report is probably correct.

BARNES, WILLIAM THOMAS I G

30 North Franklin Street, Wilkes-Barre, Pennsylvania.
Chief Engineer of The Spring Brook Water Supply Company.
Born, May 29, 1871, Salem, Massachusetts.
Married, October 17, 1906, Maude Frances Getchell. Child, Wellington Thomas.
Home, 137 West River Street, Wilkes-Barre, Pennsylvania.

EXCEPT for two and one-half years in railroad work, Barnes has been engaged almost entirely upon the design, construction and operation of sewerage and water works. Immediately following

graduation and until 1898, he was with George S. Rice and George E. Evans, Civil Engineers, Boston, as assistant engineer on the design and construction of additional water supply for the City of New Bedford, Massachusetts. He then entered the employ of Leonard Metcalf, in 1898, in charge of construction of sewers in Concord, Massachusetts. From 1899 to 1901, he was resident engineer and supervised reconstruction of main line in Illinois and Indiana, B. & O.-S. W. R.R.

1901-1920, he was again with Leonard Metcalf and (after 1907) Metcalf & Eddy, Consulting Civil Engineers, and was in charge of their Chicago office, 1911-1918. In 1913 he was admitted to the partnership in that firm, withdrawing in April, 1920, to become chief engineer of the Spring Brook Water Supply Company, which supplies Wilkes-Barre, Pennsylvania, and vicinity. He is in charge of the design and construction of new works and of the technical maintenance and operation of the existing works, furnishing water to a population in excess of 300,000, including besides Wilkes-Barre the cities and towns of Pittston, Plymouth, Kingston and Nauticoke and a number of smaller communities. Barnes during the War was resident partner in charge of the engineering in connection with three housing projects at Newport News, Virginia, for the United States Housing Corporation. The plans and specifications were ready for letting at the time of the Armistice, so actual construction was not begun.

He is a member of the American Society of Civil Engineers, Boston Society of Civil Engineers, New England Water Works Association; and of the Westmoreland Club and the Franklin Club of Wilkes-Barre, Pennsylvania.

BARROWS, GEORGE SHATTUCK (1889-90)

260 West Exchange Street, Providence, Rhode Island.
Assistant to the General Manager, Grinnell Company, Inc.
Born, October 4, 1871, Paterson, New Jersey.
Married, February 10, 1897, Ethel Randolph Clay, deceased. April 11, 1912, Eleanor Morse. Children, Ellen Clark, George Shattuck, Jr., Arthur Morse.
Home, 211 Hope Street, Providence, Rhode Island.

AFTER leaving the Institute, Barrows took a four years' course in mechanical engineering at the University of Pennsylvania, since which time he has been, in various capacities, connected with the

utilization of gas. 1894-1904, draftsman and engineer, Welsbach Company, Philadelphia, Pennsylvania; 1902-04, vice-president, Carolinas Monazite Company, Philadelphia; 1905-06, Manager, new business department, Wyandotte Gas Company, Kansas City, Kansas; 1906-09, manager, new business department, Kansas City Gas Company, Kansas City, Missouri; 1909-15, Department of Utilization, United Gas Improvement Company, Philadelphia, Pennsylvania; 1915-21, manager, Gas Heating Department, General Fire Extinguisher Company, Providence, Rhode Island; 1921 to date, head of Industrial Service Bureau and assistant to general manager, Grinnell Company, Providence, Rhode Island. He believes Tech training gives a foundation of habits of observation and application; he says his contacts with '93 men have been regrettably few. As to what he has accomplished he says: "Let Posterity reply! Seriously, it is my belief that a man's real accomplishments can only be described properly by others than himself. The measure of accomplishment is necessarily relative. Things trivial to him may be of great importance to his associates or others influenced by them, and vice versa."

His amusements and hobbies are "all those to which the normal man is addicted."

He is a member of the American Gas Association, Society of Heating and Ventilating Engineers, Providence Engineering Society, Engineers Club of New York City; of the Psi Upsilon fraternity, the Military Order of the Loyal Legion; the Agawam Hunt, and the Hope Club of Providence.

He has written numerous technical articles and reports in connection with the utilization of gas.

BARROWS, IRVING McFARLAND (1889-91) IV

No address and no information.

BARSTOW, GEORGE EDWARD II G '94

56 Graves Avenue, Lynn, Massachusetts.

Engineer, Thomson Electric Welding Company.

Married, June 15, 1898, Ethelyn G. Hoyt. Children, Laurence Edward and Ernest Albert.

FOR several months after graduating he was with the Massachusetts Highway Commission. In June, 1895, he took the position of designer for E. E. Winkley & Company, Lynn, Massachusetts,

manufacturers of shoe machinery, where he remained for four years. In the fall of 1899 he entered the employ of the Thomson Electric Welding Company and has been with them ever since. While with the E. E. Winkley Company his principal work was that of designing and improving the sole-laying machine which is now controlled by the Goodyear Shoe Company. With the Welding Company his work has consisted principally of designing and improving welding machines. (From the 1909 Catalogue.)

BARTON, HOWARD RITTENHOUSE VI G '94

220 Engle Street, Englewood, New Jersey.
Married, June 18, 1903, Ethel Breed Sherman.

FOR several years he was connected with the American Tel. & Tel. Company, resigning his position there in 1899 to become vice-president and contracting manager of the Atwood Power and Speed Gage Company of New York. Later he entered consulting engineering work in New York City and after several years of independent practice formed a partnership with Mr. Raymond Carpenter. The firm carries on a general practice as consulting mechanical and electrical engineers. (From 1909 Catalogue.)

During the war Barton was engineer in charge for Westinghouse, Church, Kerr & Company, Inc., at Naval Proving Ground, Indian Head, Maryland, enlarging power plant and smokeless powder factory.

BAUMANN, EDWARD S. (1891-93) IV

Terra Bella, California, R.F.D. No. 1, Box 7.
Born, December 13, 1865.
Married, September 2, 1907, Frances Osgood. Children, Edward O., James O. (twins)
Home, Terra Bella, California.

AT the time our 1909 Catalogue was published Baumann was practicing architecture at 757 North Clark Street, Chicago, Illinois, and was also secretary and treasurer of the Park Fire-Proof Storage Company; in 1913 he was manager of the Park Fire-Proof Storage Company at 1750 North Clark Street, Chicago, Illinois. Since 1917 he has been at Terra Bella, California.

BAXTER, JESSE BUNTON (1889-92) V

Blue Hills National Bank, Milton, Massachusetts.
Also, Associate Commissioner Department of Public Works, Division of Waterways and Public Lands, 413 State House, Boston, Massachusetts.
Married, June 29, 1909, Katherine Woodbury.
Home, 4 Brackett Street, East Milton, Massachusetts.

BAXTER is vice-president and director, Blue Hill National Bank; treasurer and director, Milton Building Associates, Milton Hospital and Convalescent Home, Milton Masonic Building Corporation; trustee, Milton Savings Bank; acting treasurer, Town of Milton.

During the war he was chairman, War Stamps Campaign and Red Cross Membership Campaign; treasurer, Y. M. C. A. War Work Fund and United War Work Campaign; member, Commission on Public Safety and American Protective League, Milton, Massachusetts.

He left the Institute at end of the third year; taught a school in Kansas City for a year and then entered the assaying department of the Kansas Smelting and Refining Company. The 16 to 1 agitation ended his work there, and he came home and soon entered the employ of the Barbenfabricken of Elberfeld Company of New York. In 1909 he became paymaster of the Walter Baker & Company, Ltd., Chocolate Manufacturers at Dorchester, Massachusetts. Circumstances then placed him in a banking position, with the result that he has followed that line of work for many years.

He has served as member of the Board of Selectmen, and as chairman of the Republican town committee in Milton, Massachusetts. At the outbreak of the Spanish War he enlisted in Light Battery A, M.V.M., Boston, in which he served for three years. He is a member of the Society of Colonial Wars of Massachusetts, Bank Officers' Association of Boston; the Massachusetts, Norfolk, Middlesex and Republican Clubs of Massachusetts.

BEATTIE, ROY HAMILTON I G

10 Purchase Street, Fall River, Massachusetts.
Contractor — Roy H. Beattie.
Born, December 9, 1869, Fall River, Massachusetts.
Married, December 2, 1896, Helen Burch. Children, Hamilton, Malcolm Burch, Helen, Alan Sinclair.
Home, Winnisimet Farm, Tiverton, Rhode Island.

BEATTIE is known to all who attended the Thirtieth Class Reunion as the "Founder of Plymouth Rock." He found the rock upon the beach, founded it in its present location and built its attractive setting for the Tercentenary Celebration.

Except for the first year after graduation, when Beattie was assistant engineer with the New York, Chicago and St. Louis Railroad at headquarters in Cleveland, Ohio, he has been in business in Fall River, Massachusetts.

1895 to 1900, with William Beattie, engineer on general construction; 1900 to date, in engineering and contracting business under his own name, building breakwater, sea-wall and wharves at Naval Coal Depot, Bradford, Rhode Island; breakwater and two wharves at naval training station, torpedo-boat and ferry slips and main wharf and sea-wall for electric light power station, and harbor and pier for Lewis Cass Ledyard, all at Newport, Rhode Island; wharves for Fall River Electric Light Company's power station, for Fall River Gas Company, for Edison Light Company's power station at New Bedford, Massachusetts, for Standard Oil Company at East Boston, Massachusetts, and for Providence (Rhode Island) Gas Company; super-structure, Sandy Bay Breakwater, Cape Ann, Massachusetts, and east and west quay walls and pier, Portsmouth (New Hampshire) Navy Yard. All this was accomplished before 1909. Since then he has been busy along similar lines.

During the first three months of the war he was chairman of the Draft Board for Division No. 6, State of Rhode Island. From then until February, 1919, he was assistant manager, Division of Wood Ships, United States Shipping Board, Emergency Fleet Corporation, with headquarters in Washington, D. C., and later in Philadelphia, Pennsylvania. In recognition of his valuable work in the Division of Wood Ships, one of the first three ships built by L. H. Shattuck, Inc., at Portsmouth, N. H., launched July 4, 1918, was named the *Roy H. Beattie,* and it was christened by his daughter Helen. From 1910, Beattie has lived in Tiverton, Rhode Island, where he has a farm and raises Jersey cows. In Tiverton he has held the offices of President, Town Council; Town Surveyor, Bridge Commissioner. He is director in the following — Metacomet National Bank, Fall River Electric Light Company and Seaconnet Mills.

(He sends regularly to the Secretary, each year, a very useful Tide Calendar which is here publicly and gratefully acknowledged.)

He is a member of the American Society of Civil Engineers, Boston Society of Civil Engineers; Algonquin and St. Anthony Clubs

of Boston; Squantum Club of Providence, and the Quequechan Club of Fall River. His chief amusements are hunting, fishing and sailing.

Two of Beattie's sons have attended Tech.

BEDDALL, ALBERT RICHARD; M.D. (1889-92) VII

Marlboro, Massachusetts.
Born, April 4, 1870, Birmingham, England.
Married, 1902, Helen Weston Pierce.
Home, Marlboro, Massachusetts.

THREE years after leaving Tech, Beddall took up the study of medicine, at the Harvard Medical and Tufts Medical Schools, and received the degree of M.D. in May, 1900. He gives the following account of himself.

"You will note from the questionnaire that I have done nothing worth while. The committee has, however, been so patient and persevering in looking up all who have been associated with the class, that they certainly deserve this attempt to give a brief account of myself.

"I entered Tech a raw and impressionable youth, but made good both in studies and athletics. Forces beyond my control caused me to leave in the junior year, and then followed several years during which I was in the wilderness not knowing what to do. The spark of ambition kindled by my classmates and the professors at Tech did not leave me, however, and under difficulties I put in three years studying medicine and I hung out my shingle in 1900. Seven years of general practice followed, with lots of experience but little income.

"I then accepted a position at a moderate salary as travelling representative for the pharmaceutical firm of R. W. Gardner, Orange, New Jersey, and have been with them ever since. For nine years, accompanied by my wife, I covered the large cities in each state east of the Mississippi, up against all kinds of experiences, pleasant and distressing. A chance came to serve as New England representative for the same firm, so I put away my trunks and purchased an old farm in Marlboro, Massachusetts, which I use as headquarters. Besides holding on to my job I have attempted some fruit raising and light farming, but am convinced that I am not a success as a farmer. The isolation of my home is lessened by a Buick and a radio receiving set.

Ninety-Three Dormitory

"My married life has been very happy. We have no children. My wife is my chum and fellow worker more today than ever.

"I believe the two men who have had the strongest influence upon my inner life the last fifteen years are Professor Sedgwick and Phillips Brooks.

"There is a warm corner in my heart for all my classmates."

He belongs to Alpha Kappa Kappa (Medical) and Sigma Alpha Epsilon (Harvard Chapter) fraternities.

BELCHER, CHARLES EDWIN (1889-90)
141 Milk Street, Boston, Massachusetts.
Publisher.
Married, January 1, 1901, Florence Eliza Bear.
Home, 8 Kilsyth Road, Brookline, Massachusetts.

BELCHER began his career as a reporter for the *Standard,* an insurance journal, in 1892. Six years later he was admitted to an interest in the company and made business manager. He was treasurer and general manager of the Standard Publishing Company from 1903 to 1911, since which time he has been president and treasurer. He served four years with the Massachusetts Naval Reserve, finishing as quartermaster. He served as trustee of the Public Library at Winthrop, Massachusetts, and is a member, Sons of the American Revolution, and a 32d degree mason. He is a member of Boston and New York Clubs.

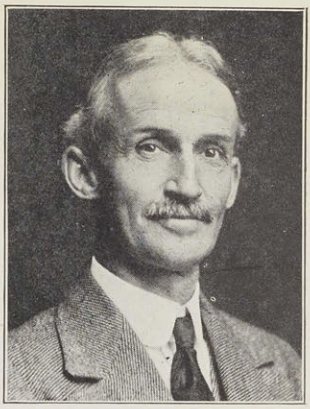
BELDEN, RICHARD EDWIN (1889-93) II
1065 Ocean Avenue, New London, Connecticut.

BEMIS, ALBERT FARWELL I G
40 Central Street, Boston, Massachusetts.
President, Bemis Bro. Bag Company; President, Bemis Industries, Inc.
Born, November 11, 1870, Boston, Massachusetts.
Married, December 30, 1899, Faith Gregg. Children, Farwell Gregg, Faith, Alan Cogswell, Alice, Judson, John R., Marjorie D.
Home, 40 Old Orchard Road, Chestnut Hill, Massachusetts.

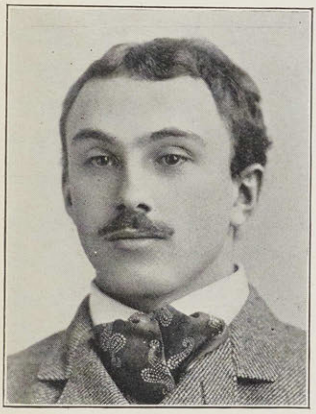
"Dear Mr. Secretary:

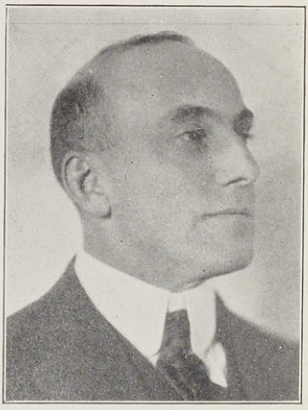
"THE writing of autobiographies is not my forte. Perhaps if I could return 'ten talents' or even the one with which I was originally endowed there might be a little more zest for the job.

Frank G. Ashton

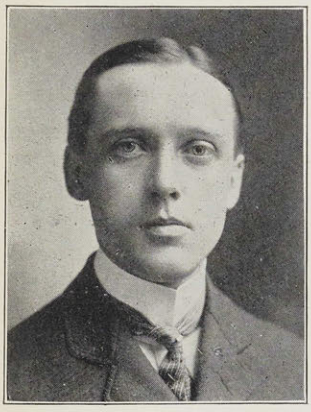


Frank S. Badger





Frederic W. Baker



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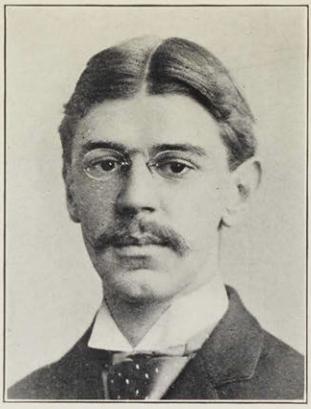
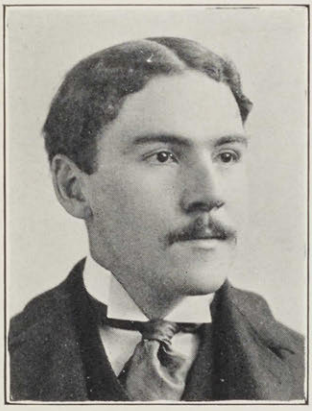
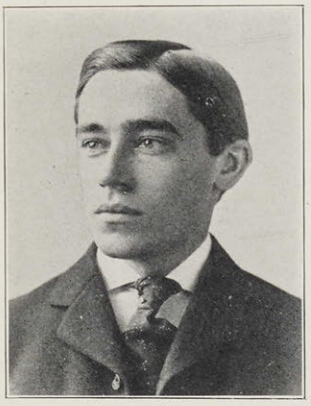
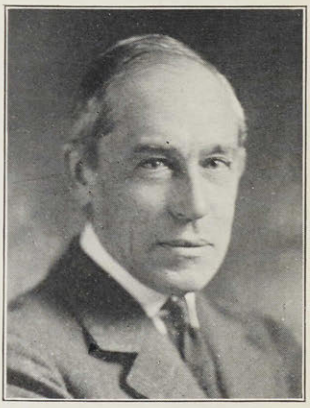


Howard R. Barton



Roy H. Beattie





A. Farwell Bemis

"Perhaps the greatest feat that I have accomplished since graduation has been the acquisition of my wife and seven children. Has anybody in the class done better, either in quality or quantity? Mr. Secretary, please enter me as a competitor in this event.

"Otherwise, Mr. Secretary, your suggestions and queries as to accomplishments are rather difficult to answer. I won't burden anybody who has the courage to read this tale with an attempt to reply serially or seriously to your topical queries. Perhaps to recite no more lies regarding my 'accomplishments' than one would find in an ordinary newspaper or weekly review will satisfy the present requirement.

"'Jack of all trades and master of none' well describes my standing in 'positions' or 'occupation' or 'pursuits engaged in' or 'successive locations' or 'public or quasi-public offices held' or 'any kind of work pertaining to the recent war or any other war' or 'noteworthy or interesting experiences' or, in fact, in connection with anything which I may 'have accomplished.'

"My chief industrial or commercial effort has been much illuminated and glorified by the vestments pertaining to the offices of secretary and president of the Bemis Bro. Bag Company. To my late father, Judson M. Bemis, who originated and built up from nothing a truly great business institution with a record for service in industrial and commercial fields of which the organization has a right to be proud, is due chief credit if not all credit in this connection. The features of this business which have been of particular interest to me have been the physical plants (buildings and machinery) and the manufacturing and personnel problems rather than the commercial features. My early efforts in this field were much aided by our classmate, Charles A. Tripp, the results of whose work are still evident and useful in several branches of the business. He left voluntarily many years ago and since then, I believe, he has been very successful as a manufacturing engineer with headquarters at Indianapolis, and more recently treasurer and manager of the U. S. F. Powder Company, Wilmington, Delaware.

"This business of the Bemis Bro. Bag Company is a very, very old one. You all remember the Bible reference to 'sackcloth and ashes.' In these days of miners' strikes and high coal, I find almost as much mournful interest in ashes as in sackcloth, but both are being kept reasonably up to date, notwithstanding the great age of the industry. The business, too, is one of world-wide interest, all of the jute now so extensively used in the industry origi-

nating in British India. In the past ten years, I have participated in the manufacture of sackcloth and ashes in India through a company called the Angus Company, Ltd. This American institution during the past two or three years has been followed by two other American institutions, viz.: the American Manufacturing Company of St. Louis and New York, and the Ludlow Manufacturing Associates of Massachusetts. Our classmate, Harley W. Morrill, Agent of this latter company at Ludlow, Massachusetts, has had a large share in the construction and starting up of their Calcutta mill. It may also be of interest to state here that the extensive buildings of this Indian plant were erected under the plans and direction of the well-known Technology engineer, Charles T. Main, '76. The Angus Company, however, was the first American owned Indian plant in this general field. Its plant is recognized as being one of the very best in Calcutta. During the last two or three years the business of the company has been enlarged to include a machine shop (or 'engineering works', as known out there) for the manufacture of textile machinery, chiefly jute machinery. This plant at present employs about 1,500 men and is admitted by all engineers who have inspected it to be the finest machine shop or engineering works on the continent of Asia. There are 6,000 employed in the jute mill. Some ten or twenty Technology men have at one time or another been connected with the business of the Angus Company and have had a large share in bringing it to its present status.

"The business just mentioned has taken me twice to India and around the world and this part of the *work* it is needless to say has proved of intense interest. When in India I learned quite a bit about the work of our classmate John I. Solomon (Solly), whose work in pearl culture deserves far greater rewards both in scientific and commercial fields than have ever thus far come to him. The Japanese perhaps were ahead of Solly in these methods of pearl culture. If they did not antedate him, apparently they have unfortunately outstripped him. The war naturally did not stimulate the demand for pearls and I believe in consequence Solly has abandoned this line of work. But I rejoice in calling to your attention this very unique and really great accomplishment of our beloved Solly.

"On the way home from India in 1922 I visited the plant of the Midland Packing Company at Shanghai. This is a large, clean, modern, fine plant for the packing of eggs. Millions of eggs come down the Yangtze-Kiang and other waterways to Shanghai and are

there packed and distributed to all parts of the world, particularly America and Europe, in two forms, dry-flaked and frozen. While in Shanghai I visited a number of plants under Chinese, Japanese, British and American management. There was not a single one of them that showed the up-to-dateness and the efficiency and progressiveness of the Midland Packing Company. Our classmate S. C. Keith is more responsible for this than any other one man. Anyway he deserves the major credit and great credit for this really big 'accomplishment.'

"In both of my world tours I stopped in Japan and connected with our classmate Heiichiro Maki, now Baron Maki. I understand he has been interested in electric transmission in Korea, but the fact that he has lived up to the high standards of '93 is evidenced by his wartime title of Baron; and the fact that he is just as good a fellow and as loyal to Tech and as interested in '93 as he was thirty years ago I can heartily bear witness to as a result of his hospitality to me on the occasion of both my visits to Japan.

"Along with other classmates working in foreign fields, Rigby Wason always has his latch-string out at Number 21 Grafton Street, London, for all members of the class. He had hard luck during the great war in having been in Austria when it broke out. Through the magnanimity of Austrian officials he was allowed to go 'on parole,' so that he was eliminated from direct participation in the war. However, he served as a member of the London air raid police patrol and as a worker in the Y. M. C. A. home war service, etc. Very early in the war one of his nephews was killed near Arras in an advance on the German trenches — Eugene Crombie, a captain at barely twenty-one and one of the finest 'flowers' of British youth. Rigby and I sought out his grave at Agnez-les-Duisans near Arras in May, 1919. Any '93 man who visits London should give Rigby a call.

" 'Experience is the name we give our mistakes.' I have had a lot of experience. As an example, I became interested in an effort to solve the housing problem through a commercial project to produce better houses at lower cost. This experience was shared with two or three classmates. The Housing Company is the name through which we mistook. Whereas we are still building our foundations, they have not sunk out of sight and this experience may yet prove a real accomplishment. In any case, we can console ourselves with the thought that 'it is better to have loved and lost than never to have loved at all.'

"Outside of the business field, in the field of association work the textile industry has had a major share of my time. For fifteen or twenty years I have been on the Board of Government of the National Association of Cotton Manufacturers and had the honor of serving two years as president. Unfortunately I was president when this country entered the great war. My war work, therefore, seemed to be already cut out for me and what very little war work I was able to do was confined chiefly to work on committees of the National Council of Defense and war service committees in connection with the textile industry.

"An organization which is doing work of a grade and character commensurate with that of Technology is the National Industrial Conference Board. This board in its work and service is a pioneer in its way and a very great force in the national field of human engineering. Together with Mr. F. P. Fish of the executive committee of the Institute Corporation and several other Technology men, I have had the fortune to serve as a member of the board. Among the suggestions which I would make in connection with Technology would be the inclusion in its curriculum of courses to further work in this general field of human engineering.

"Politics have played but a little part in my *career.* In an effort to add somewhat to my avoirdupois I served two terms or four years as a member of the Board of Aldermen of the City of Newton — wholly without results, however.

"As a member of the Corporation of the Institute, my work has been chiefly in connection with the work, first, of the visiting committee on civil engineering and secondly of the visiting committee on naval architecture and marine engineering. My position on the latter committee was apparently due to the desire for a fresh mind on an old subject and therefore the selection was made from among those as far removed from a knowledge or intimacy of the subject in hand as possible. Perhaps this is not different from all other visiting committees. The members of all these committees are expected to flounder about and navigate as best they can without compass, rudder, sail or engine. The accomplishments of the chemical committee and the architectural committee and the committee which planned the course in engineering administration and some others are all the more remarkable. I believe these committees could in general be utilized to better advantage than the system in vogue heretofore for steering them has made possible.

"Do you know of the recent work of our classmate F. W.

Fabyan, who during the past year or two has been arousing among the students a very distinct interest in logic and linguistic expression through the meetings for debates and 'public speaking' which he has arranged? It is quite apparent that the lack of training and accomplishment in this general field of expression on the part of Technology men has been chiefly due to the lack of the right atmosphere at the Institute. If proficiency in logic and the use of English were made a requirement in every subject at the Institute in which written or spoken tests are required, it would provide the atmosphere and hence the incentive and to my mind bring most beneficial results. Furthermore, if in such courses practically all teachers were thus required to be teachers of English, it would have a healthy reaction upon the teachers as well as upon the taught and facilitate the acquirement of scientific and technical knowledge as well as proficiency in the use of English.

"The one great need at Technology today is dormitories. We have the finest and largest plant in the world for technological education to which now well over 3,000 students come for the regular courses (not to mention those who come for the summer courses) and yet we offer them accommodations for a meagre 200 men. We should not provide them with a palace like the Harkness dormitory at Yale. Neither before nor for some years after their course at Tech will our students be very familiar with such accommodations. We *should* provide them (to the extent of 1,500 or 2,000 men) with at least the minimum modern housing and dining facilities under conditions that will be physically and morally sound and good. With our new President, Dr. S. W. Stratton, keenly interested in this project, we are on the eve of getting some accomplishment in this direction and we men of '93 must pick it up, back it up and push it along."

During the recent war, Bemis was a member of the following Commissions of the Advisory Commission, Council of National Defense — Labor, Cotton Goods Buying, Production Engineering, Cotton Goods Section; member, War Service Commission, National Council of American Cotton Manufacturers; chairman, executive committee, National Association Bag Manufacturers; member, M.I.T. War Service Auxiliary; member, Commission on Industrial Inquiry of the National Civic Federation, sent to Europe March '19 to investigate industrial conditions in England and France.

Bemis is president and director of Bemis Bro. Bag Company and of Housing Company, Boston; director, Boott Mills (Lowell),

Angus Jute Company, Ltd. (Calcutta, India); National Association of Cotton Manufacturers, and Second National Bank of Boston; member of Finance Committee and life member of the Corporation and past president of the Alumni Association, Massachusetts Institute of Technology. He is a member of the American Society of Civil Engineers, American Cotton Manufacturers' Association (director and past president), Academy of Political Science; Theta Xi fraternity; Republican and Congregationalist Clubs; and Exchange, Boston City, Engineers, Commercial, Union and Technology Clubs of Boston. He is a member of the Standing Committee of the Old South Society.

He has written: The Labor Situation in Great Britain and France; A Journey to India; Report on Tech Dormitories, 1912-13 (a masterly report); also, several reports on Standard Specifications for Staple Grey Goods (Cotton). He takes pleasure in "most anything outdoors except joy-riding."

BERRY, HEREFORD VI G '94

Born, August 24, 1871, Gloucester, Massachusetts.

Married, March 22, 1893, Minnie Frances Miner. Children, Giles, Hereford, Frances.

Home, R.F.D. Route 3, Box 405, Long Beach, California.

AFTER graduation we first hear of Berry as draftsman with the Eureka Tempered Copper Works, New York City; then for two years with the Crocker Wheeler Company, Ampere, New Jersey, resigning his position as chief draftsman in 1902 to take a position with Siemens Brothers & Company, Ltd., London, England, as assistant mechanical engineer in their dynamo and motor department, afterwards becoming chief mechanical engineer.

About 1907 he returned to this country and became electrical engineer with the Westinghouse Electrical and Manufacturing Company at Pittsburgh, Pennsylvania.

Later, going to Southern California, Berry became owner of the Pioneer Auto Company at Long Beach. He gives his present occupation as "watchful waiting," says that he has had plenty of interesting experiences, but the story of them would be too long. Two of his sons were in the Army during the war and he did his bit by way of incidental mechanical work.

To our question as to what he has accomplished he makes reply, "a number of inventions pertaining to mechanics and a competence."

He pays Tech a tribute as to training, but says he has had no contact with Tech men for nearly twenty years, adding, however:

"I wish to nominate C. W. Taintor for the memory medal (Gold); I received a post card from Tosari, Java, signed Taintor, the other day, the first personal note from him in thirty years and the only communication from any member of '93 in eighteen years. This is an appreciation."

"Angling, De Luxe, and plain fishing" and, although he does not say so, cats, are Berry's hobbies.

*BEST, CHARLES FRED (1889-90) VII

Charles F. Best died in Denver on May 24, 1918.

HE was president of J. D. Best and Company, wholesale grain dealers. He was married in 1894 to Mabel Padelford; they had one son, Whitman.

BISCOE, MAURICE BIGELOW IV G

50 Congress Street, Boston, Massachusetts.

Of, Andrews, Jones, Biscoe and Whitmore, Architects, Boston, also of Biscoe, Fisher and Fisher, Denver, Colorado.

Born, July 19, 1871, Westboro, Massachusetts.

Married, November 24, 1906, Agnes Slocum. Children, Jonathan, William Slocum, Helen, Ann, Arthur Gardner.

Home, 595 Boylston Street, Newton Centre, Massachusetts.

"AFTER a year of post graduate work at Tech in 1894, I entered the office of the late H. Langford Warren of Boston as draftsman. Three years later I spent two years in the office of Peabody and Stearns of Boston, leaving there to enter into a partnership with Mr. Warren and Mr. F. Patterson Smith, M.I.T. '92, for the practice of architecture. Leaving Boston in 1906 I went to Colorado and practiced architecture in Denver until 1918, when I came to Boston to assist the Housing Company in their industrial housing work. In 1921-22, after leaving this Company, professional work kept me in Denver the greater part of the time.

"My life and work in Denver was most interesting and delightful. Professionally, besides the usual commercial and residence work, a number of commissions of unusual interest came to me. Among them a group of seven buildings for the Clayton Industrial School; one of twenty-six buildings for the Myron Stratton Home at Colorado Springs; the Children's Hospital, Denver; buildings for the

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SIXTH CATALOGUE

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State Agricultural College and for Colorado College, The State Psychopathic Hospital, and the large group in Denver consisting of the State General Hospital, University of Colorado Medical School, Nurses' Home, Power Plant and accessory buildings which are now under construction.

"I have held no public office other than serving for two years as President of the Colorado Chapter of the American Institute of Architects, for three years as President of the Cactus Club of Denver and membership on such boards as the Denver City Planning Commission and the Denver Art Association.

"During the War I did no more distinguished service than building barracks for the R. O. T. C. and coal mining towns for the Colorado Fuel and Iron Company, and the usual citizen work in behalf of Red Cross, Y. M. C. A., etc.

"My experiences have been only those associated with a busy life in an exacting profession and with the arduous task of attempting to bring up five healthy, active boys and girls to be good American citizens."

He is a member, American Institute of Architects; and, in Denver, of the Cactus Club, Denver Club, Art Association, Mile High Club, and Denver Country Club.

On April 1, 1924, Biscoe became a member of the newly established firm of Andrews, Jones, Biscoe and Whitmore, which succeeds the firm of Andrews, Rantoul and Jones.

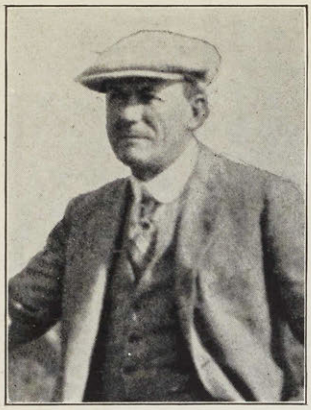
*BISSELL, JOSEPH EMERY (1889-90)

Deceased.

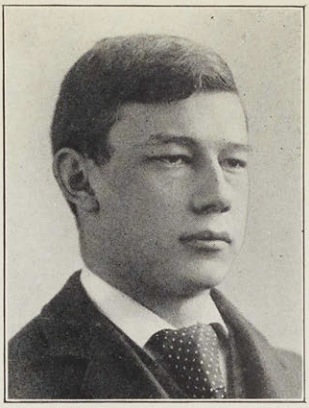
BLAIR, JOSHUA BROWN (1889-91) IV

7 Water Street, Boston, Massachusetts.
Architect with C. G. Loring.
Born, June 26, 1869, Worcester, Massachusetts.
Married, June 15, 1898, Jessie M. Macquarrie.
Home, 184 Bellevue Street, West Roxbury, Massachusetts.

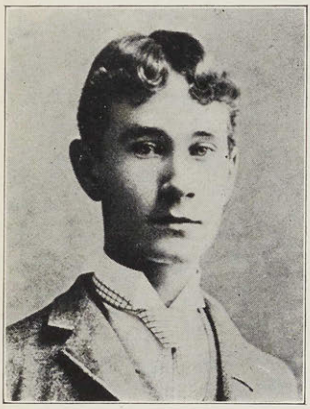
BLAIR, consistently following the profession of architecture throughout his business career, has been associated with the following Boston architects, A. W. Longfellow; Kendall, Taylor and Stevens; Brainerd and Leeds and C. G. Loring. During the war he did architectural work for Monks & Johnson on the Fore River Destroyer

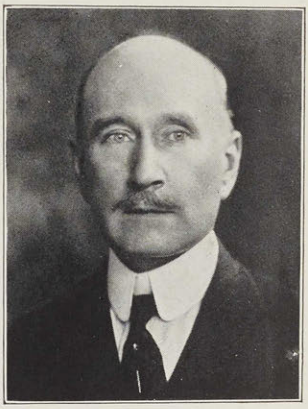


Hereford Berry

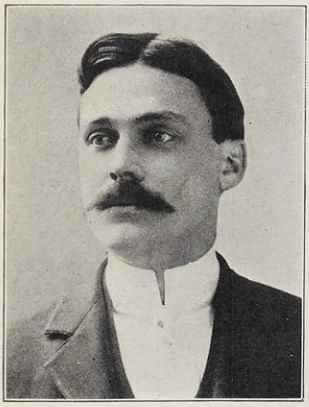


Maurice B. Biscoe

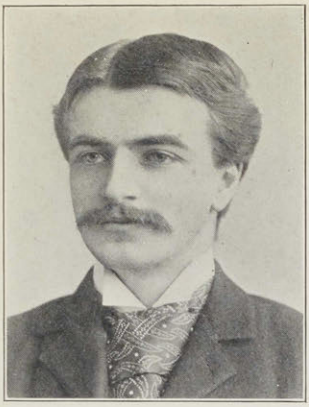


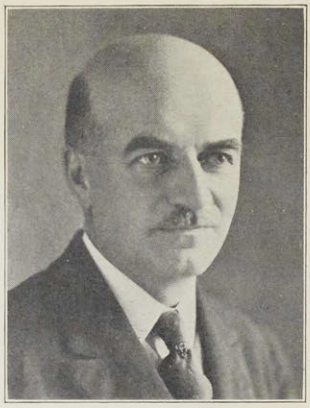


Joshua B. Blair

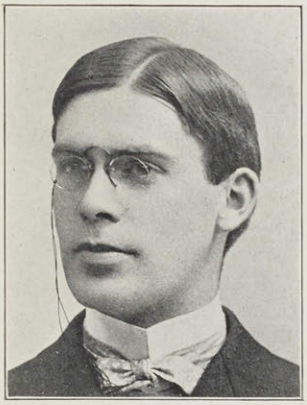


Edmund E. Blake





Grosvenor T. Blood



C. Royce Boss

James C. Boyd

Plant at Squantum, and for Fay, Spofford & Thorndike on the Boston Army Supply Base.

He has served as Architect with the School House Commission.

Blair studied at Cornell University, but Tech '93 claims his strongest allegiance and he has a good word to say for Tech training. Music is his diversion.

BLAKE, EDMUND ENOS II G

Biddeford, Maine.

Agent of Biddeford (Maine) Shop of Saco Lowell Cotton Machinery Company.

Born, November 13, 1870, Boston, Massachusetts.

Married, November 4, 1896, Clara E. Sheppard. Children, Mary B. Stellman, Malcolm S., Donald M. (deceased), Edmund G.; one grandchild (1923).

Home, 75 North Street, Saco, Maine.

IN the spring of 1923, during Ned Blake's absence, Mrs. Blake replied to our inquiry as follows:

"Edmund E. Blake is at present in China on the foreign business of his concern and will return in May, we hope in time for the thirtieth reunion.

"He has been in this same corporation since the fall of 1893 and has seen and helped it grow from the small cotton Machine Shop in Newton Upper Falls (Massachusetts), making only a small number of machines used in Cotton Mills to the leading Cotton Machine Shops of America with three plants—in Newton and Lowell (Massachusetts) and Biddeford (Maine), agencies in the South and in Europe, South America, and Asia. Much export business to China and Japan is done and Mr. Blake is now completing a tour around the world on their foreign business. The past summer he spent in Europe with his family, wife and two sons, taking the first real vacation since graduation from Technology. (Cordially for Mr. Blake, Clara S. Blake.)

"Mr. Blake has been meeting Tech men all over the world and can tell you about them when he returns."

With a wife at home who can attend to his affairs so efficiently, it is no wonder that Blake can travel to the Far East. Some may remember Mrs. Blake as Clara E. Sheppard, Course VII, '95. One of their sons has attended Tech.

Blake is a member, American Society Mechanical Engineers;

Maine Manufacturers' Association; President, Webber Hospital; Trustee, Sweetser Orphan Asylum; Trustee, Thornton Academy; Alderman City of Saco, Maine, etc., etc. His hobbies are hunting and fishing.

BLISS, CLARA A.; B.S., M.A. (1890-91, 1904-05) V VII
Wells College, Aurora, New York.
Professor Chemistry.
Born, November 11, 1863, Newburyport, Massachusetts.
Home, Wells College, Aurora, New York.

DURING the year 1891-92 and in 1893, Miss Bliss taught Chemistry in the Brattleboro, Vermont, high school. In 1893 she began teaching at Wells College, and has been professor of chemistry at that institution since 1894. In 1914-15 and in 1921 she taught Chemistry at Columbia University. Miss Bliss graduated from Mt. Holyoke Seminary in 1888 and received the degree of Bachelor of Science from Mt. Holyoke College in 1899 and since then the degree of Master of Arts. She is a member of the American Chemical Society.

For one year during the war Miss Bliss was in charge of the relief work done by the faculty and students of Wells College for the American Fund for the French Wounded.

BLOOD, GROSVENOR TARBELL VI '93 II '94 G
195 Broadway, New York City.
Engineer in Department of Operation and Engineering, American Telephone and Telegraph Company.
Born, August 22, 1872, Newton, Massachusetts.
Married, October 14, 1911, Elsie Louise Anderson. Children, Grosvenor Anderson, Eleanora Balch.
Home, 106 Prospect Street, East Orange, New Jersey.

Of his own career, Blood writes:

"SINCE leaving Tech I have been with one employer only, the American Bell Telephone Company and its successor, the American Telephone and Telegraph Company. In 1894 entered the engineers' department of American Bell Telephone Company, Boston, work on toll lines records and results. In 1901 work on cost and economy studies; later on outside plant engineering and cable development. In 1910-11, when commission regulation began, valuations became necessary, and since that time my work has been in

relation to valuation methods and allied questions. In 1901, to keep out of mischief, I took up the study of law in the Evening Law School, then recently opened in Boston, and in 1904 was admitted to the Bar in Massachusetts. I have remained in engineering work, but the legal training has been of great indirect benefit to me. In Boston, 1894-1907; in New York, 1907 to date.

"The telephone organization had to be maintained through the war and I remained on my job. I was a member of a home guard organization which saw some real service. I also worked on each of the Liberty Bond campaigns."

And of Tech training—"Training is the word. The actual facts I learned on the particular subjects studied, it so happens, I have used but little. The training—the way to study a question in an engineering manner—has been invaluable. This leads me to wonder whether less specialization and more time spent on thorough general principles and methods and the importance of the right answer should not be the aim of the Tech course."

While living in Newburyport, Massachusetts, Blood was a member of the common council and of the school committee. He is a member of the American Institute of Electrical Engineers, and of the Telephone Society of New York; Telephone Pioneers of America; and the East Orange Tennis Club. Tennis, canoeing and gardening are his hobbies.

BOSS, CHARLES ROYCE IX G '94

418 Plant Building, New London, Connecticut.
Investment Counselor.
Born, November 1, 1871, New London, Connecticut.
Married, November 27, 1897, Lucretia D. Barns; May 15, 1922, Elizabeth R. Norton. Child, Charles Acors Barns.
Home, 236 Washington Street, Norwich, Connecticut.

AFTER graduating from Tech, Boss was employed by C. D. Boss & Son, Cracker Manufacturers, but after a few years became connected with A. B. Leach & Company, investment bankers of New York City, at their New London office. On February 15, 1924, he resigned and opened his own office in New London as Investment Counselor. He has been active in municipal affairs, having served as Alderman and as Acting Mayor of the City of New London, and as a member of the Connecticut General Assembly. During the War, as Red Cross Committee Chairman, he directed Liberty Loan

campaigns in Eastern Connecticut. He says he is still looking for interesting experiences; and that he has, for accomplishment in these thirty years, managed to keep the wolf from the door. Referring to Tech, that the chief benefit from the training is the ability of knowing a good thing when he sees it; and he regrets that his contact with '93 men has been slight. He would like to see restored old Course IX with elective additional studies. It is not difficult to guess that his hobby is Golf, considering his club membership; Shennecossett Country Club, Thames Club, New London, Connecticut; Norwich Golf Club, Arcanum Club, Norwich, Connecticut; Turks Head Club, Providence, Rhode Island; and Masons and Elks.

*BOWKER, LYMAN APPLETON (1889-90)

LYMAN A. BOWKER died at the Waltham Hospital on September 8, 1916, of injuries which he received when he jumped from a moving trolley car. He received a compound fracture of the skull and was unconscious from the time of the accident until the time of his death, which occurred a few hours later.

Bowker was a member of the firm of Bowker and Roskilly, interior decorators with offices at 120 Tremont Street, Boston.

He was born, had always lived in, and was widely known in Waltham, as he had taken an active interest in city affairs. He served as a member of the Board of Aldermen in 1909, 1910 and 1911 and as chairman of the Republican City Committee. Indirectly his interest in politics caused his death, he being so busily engaged in reading a voting list that he signalled just too late for the car to stop near his home. Instead of waiting for the next stop, he jumped from the running board. He left a wife, formerly Alice Maynard Wade, and three children, Anna Wade, Edith and Lyman A., Jr. He was a member of Monitor Lodge, A.F. & A.M., and of the First Corps of Cadets.

BOYD, JAMES CHURCHILL (1889-92) III

65 West Commercial Street, Portland, Maine.
Consulting Engineer; Treasurer, E. Corey & Company, Portland.
Born, August 19, 1871, St. Louis, Missouri.
Married, September 5, 1895, Ada Yerxa. Children, James W., Robert C., John S.
Home, North Falmouth, Maine.

BOYD'S early work after leaving the Institute included surveys in the Engineering Department of the Bangor & Aroostook Railroad, a year as chief engineer of the Patten & Sherman Railroad, and work on the construction of a sewerage system for Houlton, Maine, and on surveys and plans for water works of Lincoln, Massachusetts. From 1897 to 1902, Boyd was actively engaged on the construction of the Boston Elevated Railway, for two years on preliminary studies, estimates and designs, two years as division engineer in charge of the designs and construction of the Charlestown, Atlantic Avenue and Subway Divisions, including terminal stations and shops, and a year in charge of the maintenance of structures, tracks, signals, buildings, etc.

In 1902 he returned to the Bangor & Aroostook R.R. in charge of new construction work, and as engineer of tracks, bridges, buildings and signals. In 1903, he became associated with Westinghouse, Church, Kerr & Company, in charge of various work, including mechanical problems, the transmission and third rail systems for the Long Island Railroad, and in association with Mr. George Gibbs, Consulting Engineer, he made designs, estimates, layouts and reports for a system of subways in the City of New York, covering the route now known as the Lexington Avenue Route. In February, 1907, Boyd was appointed mechanical engineer, and in May of that year, consulting mechanical engineer of Westinghouse, Church, Kerr & Co., and in 1910, was appointed consulting engineer of that Company. Concerning his later work Boyd wrote in 1913:

"Have been in consultation and made reports on transportation matters to the Metropolitan interests of New York City, tunnels and proposed routes for subways for the Brooklyn Rapid Transit Interests, subway routes and interstate tunnels for John B. McDonald and others and have been called in consultation by W. Caryl Ely, former President of the International Street Railway, Buffalo, in connection with his Ohio Valley Electric Railway project. Made plans and report for an elevated system for the City of Montreal for certain railway interests in Montreal. Was called in consultation on waterways of the state by the Governor of New Jersey and made report to him covering these. Also was called in consultation by the officers of the New York Central and the New Haven Roads in connection with their electrification work.

"In connection with my consulting work for W. C. K. & Co., have been connected with the design and construction of numerous power houses, railroad shops, industrial plants and electric and

steam railways and appraisals covering approximately $300,000,000 of property." Boyd later became chief engineer and first vice-president of the company.

During the war, as chief executive, Westinghouse, Church, Kerr & Company, Boyd designed and constructed a large amount of work for the United States War Department and Navy Department. He served in Washington on sub-committee of the National Council of Defense — 1917; was president of the Associated Rifle Clubs of New York and New Jersey and organized the Home Guard movement there and the training of civilians and men subject to the draft in rifle practice.

Boyd writes, "Now consulting engineer in Portland, Maine. Have had at various times a good many hundred engineers under my direction, among them a large number of M.I.T. men; these latter were almost without exception the better trained men."

Boyd takes an active interest in civic affairs and is now serving as first vice-president of the Portland Chamber of Commerce. He is a member, American Society of Civil Engineers; Technology Club of New York; Sons of American Revolution; Cumberland Club and Rotary Club of Portland, Maine; Tech Varsity Club; and the American Guernsey Cattle Club. His hobby is raising pure bred stock and he is a fisherman, also.

BRAMAN, SAMUEL NOYES II G

Sidney and Pilgrim Streets, Cambridge, Massachusetts.
Manager of the Morss & Whyte Company.
Born, August 4, 1869, West Newton, Massachusetts.
Married, May 4, 1919, Ethel Sears Gilman.
Home, 187 Park Street, Newton, Massachusetts.

AFTER graduating from the Institute, Braman was employed in the plan department of the Associated Factory Mutual Insurance Companies of Boston for a couple of years. He was next connected for several years with the motive power department of the Boston and Maine Railroad, during which time he resided at Wayland, Massachusetts. He was afterwards for several years with the Westinghouse Machine Company, being located first at that company's Boston office and later at their Philadelphia office. For some time he has been connected with The Morss and Whyte Company, as manager.

During the Spanish-American War Braman was connected with the department of steam engineering of the United States Navy at the Charlestown Navy Yard and was in charge of repairs and alterations on a number of government vessels.

He is a member of the American Society of Mechanical Engineers; University Club of Boston and Corinthian Yacht Club. Yachting is his chief amusement.

BREED, STEPHEN ALEC II G '94

Massachusetts Institute of Technology, Cambridge, Massachusetts.

Assistant Professor of Drawing and Descriptive Geometry at M.I.T.

Born, April 12, 1872, Lynn, Massachusetts.

Married, June 12, 1918, Laura Post. Child, Margaret.

Home, 10 Remington Street, Cambridge, Massachusetts.

"AFTER graduation I spent six years in my father's lumber mill and power plant at Lynn, Massachusetts. Later I worked in the Testing Department at the Lynn works of the General Electric Company. In 1905, I came back to the M. I. T. as instructor in Drawing and Descriptive Geometry, and am now Assistant Professor in this department.

"My war service is limited to the work required in a home defense battalion known as the First Motor Corps, Massachusetts State Guard. Previously I had had 8 years training in the First Corps Cadets of the National Guard.

"I have benefited from my training at M. I. T. by a general understanding of our industrial civilization and especially from the habit and expectation of working hard inculcated. This latter is, I think, the best thing a student gets from the school. Contact with '93 men in my case has been practically limited to class reunions, with the exception of Professor Kenison of the Drawing Department, who is also a '93 man.

"The major part of my accomplishments are, I feel, not connected with my M. I. T. work, but rather with my summer work. Since 1908, I have been interested in summer camping for boys, and each summer now I have charge of a camp of 60 boys from 8 to 14 years old in the State of Vermont. I try to teach them to live in the open with a culmination each season in a ten-day canoe trip to Lake George, New York, carrying all supplies and equipment."

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Breed is a member of American Association of University Professors, American Educational Association; Faculty Club, M. I. T.; Appalachian Mountain and Green Mountain Clubs; Woodcraft League of America; "Gigotowan" of the Keewaydin Camps. His hobbies are canoeing trips and mountain climbing.

BREED, STEPHEN LOVEJOY (1890-92) II

Care H. C. Miller, 25 Central Square, Lynn, Massachusetts.
Lawyer.
Home, 74 Parkland Avenue, Lynn, Massachusetts.

SINCE 1919, Breed has been associated with H. C. Miller, lawyer, of Lynn, Massachusetts.

He had a law office in the Tremont Building, Boston, for several years.

BREMER, SAMUEL PARKER (1889-90)

4 Winthrop Square, Boston, Massachusetts.
Dry Goods Commission Merchant — Member of the firm of Parker, Wilder & Company.
Born, November 14, 1872, Brooklyn, New York.
Married, November 4, 1896, Mabel R. Burrage. Children, Edith, Mabel F., Ruth P.
Home, 33 Marlborough Street, Boston, Massachusetts.
Bremer writes:

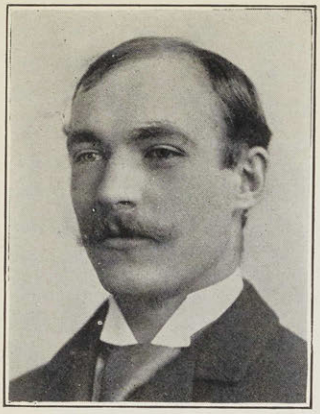
"ON leaving Tech, I entered the employ of my father, John L. Bremer, then senior member of the firm of John L. Bremer & Company, selling agents for various cotton mills. On his retirement from business in 1896, I obtained employment with the firm of Parker, Wilder & Company, which was established by my great-grandfather — practically the same line of business — and have been with them ever since.

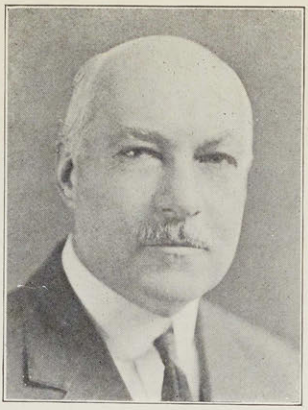
"I have not found that my work at Tech helps me in any special way, except possibly that it taught me to concentrate on what problems there were.

"During the war, I was a member of the Cotton Duck Committee of the Council of National Defense."

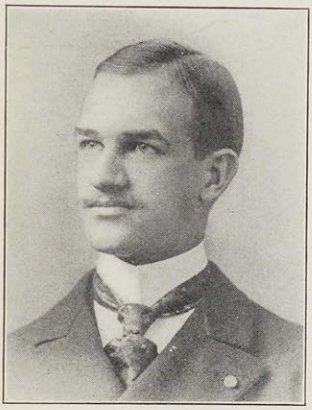
Bremer served thirteen and one-half years in the First Corps of Cadets, M.V.M., in 1903, resigning his commission as paymaster with the rank of first lieutenant.

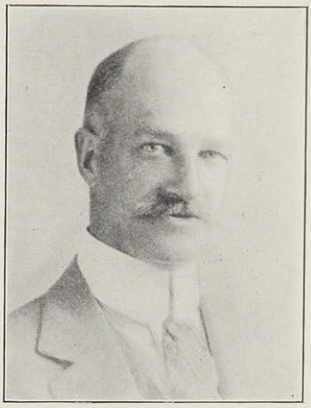
He is president and director of the Belvidere Woolen Company,



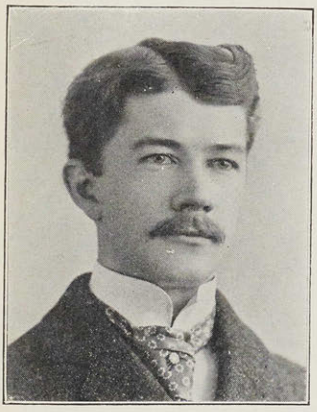


Stephen A. Breed





S. Parker Bremer



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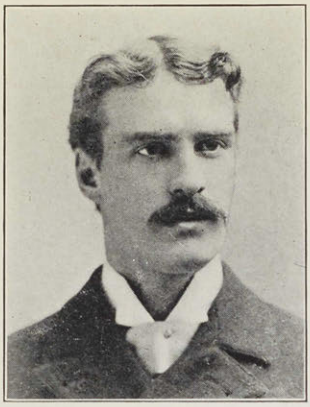
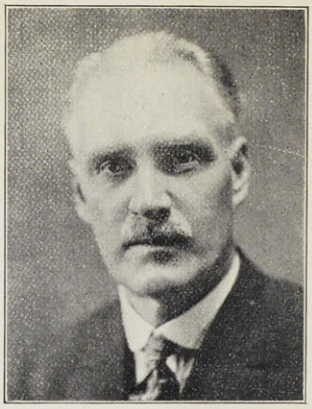
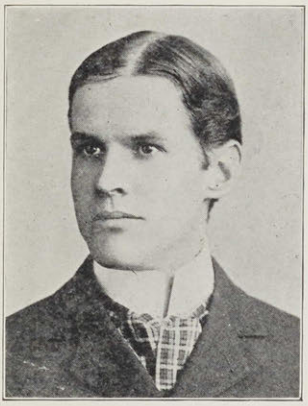
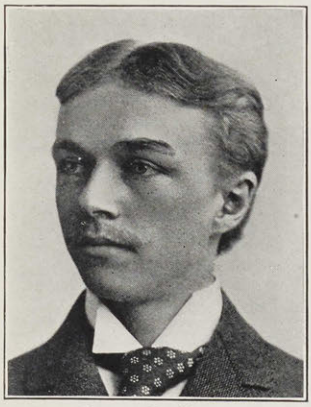




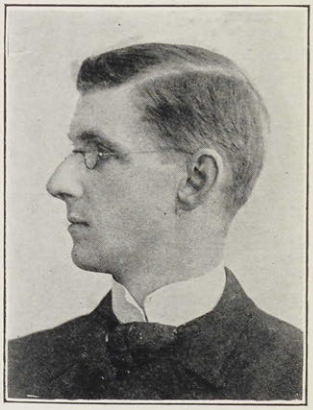
WARREN E. BROOKS



J. WINN BROWN



*JOHN C. BROWN



ERNEST C. BRYANT

Cocheco Woolen Manufacturing Company, and Gonic Manufacturing Company; director of the Naumkeag Steam Cotton Company, Stirling Mills, and New England Trust Company; member, board of managers, Children's Hospital.

He is a member of the Algonquin, Boston Art, Commercial and Exchange Clubs of Boston; Brookline Country Club; Eastern Yacht Club; Essex County Club; and Merchants and Union League Clubs of New York. Golf and yachting are his hobbies.

BRITTAIN, JOHN RANDOLPH (1890-92) IV

2108 Maple Avenue.
Los Angeles, California.
Mechanical Engineer, Los Angeles Railway Corporation.

IN 1903 Brittain reported as follows: "My first work after leaving the Institute was patent office drawing with a Boston engineering company and later detailing and tracing for an expert machine designer. After six months at the above I was employed by the Thomson-Houston Electric Company, General Electric Company, West End Railway and the Brooklyn City Railroad Company, as draftsman. My work in the above four companies was mostly electrical and structural. Have worked on high grade wood working machinery for two years; also have had shop experience, including that of machinist, pattern maker and foundry man. For the last five years my work has been designing and drafting textile machinery."

He served three years as seaman in Company A, First Battalion, Naval Brigade, M.V.M. He is a member of the Masonic Order, Springfield, Massachusetts, and has delivered a series of lectures on mechanical drawing and machine designing.

BROCKUNIER, SAM HUGH; A.M. (1889-Feb. 1893) III

6624 Dalzell Place, Pittsburgh, Pennsylvania.
Mining Engineer, Petroleum Geologist.
Born, October 30, 1868, Wheeling, West Virginia.
Married, October 30, 1901, Clare Sawyer Reed. Children, Charles Wilbur, Sam Hugh, Elizabeth Brady, Clare Reed, Sawyer Reed.
Home, 7 Nesmith Street, Lowell, Massachusetts.

"Brock" gives this account of himself:

"To give the different positions of a nomadic mining engineer would fill a page and with small profit to the reader. For several years

after leaving Tech, I was a petroleum engineer operating in West Virginia, Pennsylvania, Ohio and Kentucky; thereafter practised as mining engineer. With the discovery of the Klondike I was thrown into metal mining. In my earlier days I shoved an ore car in the West, bucked the snows of Canada and Alaska, surveyed and assayed in Arizona, Honduras and Montana, examined water powers in Adirondacks and California, stage coached in Utah and Idaho, suffered thirst in Nevada; but this is all in the day's work of a miner. He is the pioneer of the country and lives up to the strict ideals of professional etiquette, wherever he may be. I never met a Tech engineer who had not come through clean. I managed properties in the West, in Canada and Honduras. For three years was advisory engineer for United States Brick Company in New York and Pennsylvania and consulting engineer for coal, timber and ore companies in West Virginia. The war found me in California managing the Pennsylvania Gold Mine in Placer County. Many of the men went to war and the mine was shut down. Was then sent to Canada as General Manager of Cordova Mines, but the war closed this down also.

"When we entered the war I was summoned to the editorial staff of *Engineering and Mining Journal,* New York, but when the increasing need for more iron of a pure quality was felt, the old magnetite mine at Lyon Mountain, New York, was rejuvenated and I was asked to take charge of the work. By introducing labor saving devices and methods we succeeded in doubling the tonnage with the same number of men, despite the scourge of flu and the machinations of German spies.

"After the war I returned to the practice of petroleum geologist, operating in Canada, Pennsylvania, Ohio, Arkansas, Texas and Kentucky, and made one trip to James Bay, Canada, for a British syndicate. While there found fossils identifying certain geological formations farther North than geologists had hitherto thought them to be, and showing possibilities for oil and gas in that cold, far-north country.

"In the past year all the locations for oil and gas which I have made have been producers. This is almost a challenge to fate or the Gods. It is fascinating work, but hard on a family man. My classmate, a mining engineer, who turned farmer, has the advantage of me.

"I owe one of the most valued assets that the years have brought me to my Tech education, backed by my experience, especially the

statistical experience on the *Engineering and Mining Journal* which has given me the ability to analyze the statistics of an industry and reduce them to a few words and graphic curves which present the facts to the mind at a glance.

"Tech men always glory in being able to rise to an emergency. If any set of men encounter more emergencies than the miner I do not know it, and I rise to say that the teachings inculcated at Tech enable you to meet any emergency like a man, with head up, chin out, and asking no favor."

In 1902, Brockunier was offered the position of instructor in ore dressing at Columbia University, and in 1907, the chair of mining at the University of West Virginia.

In 1896, he took an active part in politics, and as secretary of county organization he was instrumental in turning the County and State of West Virginia to McKinley. 1900-04, he served as Colonel, A.D.C., to Governor A. B. White of West Virginia. He is a member of the Chi Phi, Masonic and Elks fraternities and of the American Institute of Mining and Metallurgical Engineers.

He has published numerous articles in the scientific press. Before entering Tech he studied at Dickinson College, Carlisle, Pennsylvania (1887-89); and afterwards, at the School of Practical Science, Toronto, Ontario (1897-98). He received the degree of A.M. from Dickinson College in 1898. He entered his son at Tech in 1923. Brockunier is a baseball and sport fan.

BROOKS, WARREN EVERETT; S.B. (1889-92) IV

First National Bank Building, Wausau, Wisconsin.
General Manager, Wisconsin Valley Improvement Company.
Born, December 18, 1870, Medford, Massachusetts.
Married, November 18, 1896, Lillian E. Brown. Children, Helen, Luther E., Marion.
Home, 824 Hamilton Street, Wausau, Wisconsin.

BROOKS studied at Worcester Polytechnic Institute from 1892 to 1894. Following his graduation from that institution in 1894, he was in the engineering department of the Chicago Northwestern and Boston and Albany Railroads for two years; 1896-03, assistant engineer of the Metropolitan Water and Sewerage Board on the construction of the Wachusett Reservoir; 1903-05, superintendent construction, United States Quartermaster Department, Fort Hancock, New Jersey; 1905-16 hydraulic engineering and contracting

on Wisconsin River, under firm name of Langley and Brooks; 1916, to date, general manager and engineer for the Wisconsin Valley Improvement Company, a conservation company organized by the water power operators on the Wisconsin River, maintaining a system of 15 storage reservoirs for the purpose of storing flood waters and regulating stream flow for power purposes. The company operates under the supervision of the Railroad Commission of Wisconsin. It also, by agreement of the water power owners of the Wisconsin Valley, assumes direction of the use of water by all operating powers on the river.

He is a member of the Engineering Society of Wisconsin and of the Phi Gamma Delta, and F.S.M. fraternities.

Camping and canoeing are his greatest diversions.

BROWN, CHARLES CUSTER (1889-92) I

19 North Main Street.

Yeagertown, Mifflin County, Pennsylvania.

FOR several years Brown was chief draftsman of the Standard Steel Works of Burnham, Pennsylvania.

During the war, as consulting civil engineer for this company, he manufactured shells and shell forgings for domestic and foreign governments as well as gun forgings for the United States Government.

BROWN, FRANK ELWOOD (1890-91) IV

47 Orange Street, New Haven, Connecticut.

Architect.

Married, August 17, 1901, Martha P. Osborn.

"LEFT the Institute in 1891, and entered employ of Mr. C. H. Stilson, New Haven, Connecticut, architect; afterward forming partnership under name of Stilson & Brown. On the death of Mr. Stilson, formed new partnership under name of Brown & Berger. Afterward the partnership was dissolved and I lived in the southern mountains a few months. Returning to New Haven, I entered business under my own name. In 1900, I was forced to give my business up on account of ill health; in November, went to Asheville, North Carolina. In the spring of 1901, opened office in Asheville and later went to Pittsburgh, Pennsylvania, where I entered the employ of two different architects. In the summer of 1902 I returned to New Haven." (From 1909 Catalogue.)

During the war, Brown was a private in the Connecticut State Guard on guard, police and riot duty in 1917, '18 and '19.

BROWN, GLENN CHARLES (1888-93) III

No address.

AT the time our 1909 Catalogue was published, Brown was superintendent of mines at Muscoda for the Tennessee Coal, Iron and Railroad Company of Bessemer, Alabama, having entered the employ of that Company about 1902, and was living at Hotel Hillman, Birmingham, Alabama. He was married on February 8, 1899, to Minnie E. MacLean, who died October 9, 1902. He wrote for the 1909 Catalogue:

"Worked in the mechanical department of the Minnesota Iron Company, and later had charge of the mechanical departments of all the Minnesota Iron Company mines on Mesaba Range for three years. Was manager of the Genoa Iron Company at Sparta, Minnesota, for two years; and manager of the Fayal Iron Company at Eveleth, Minnesota, for one and one-half years."

BROWN, JACOB WINN (1889-90)

79 Milk Street, Boston, Massachusetts.

The Union Central Life Insurance Company.

Born, October 20, 1871, Woburn, Massachusetts.

Married, June 20, 1900, Edith E. Ramsdell. Children, Barbara Winn, Priscilla Dean.

Home, 33 Arlington Road, Woburn, Massachusetts.

IN 1893 Brown entered the publishing business with Silver, Burdett and Company, at first in that firm's Boston office and in New York, 1903 to 1910, becoming director and vice-president of the company. In 1921, he entered the insurance business. During the war he was a member of the First Motor Corps, M.S.G., and of a local Public Safety Committee and served as chairman of the local Red Cross, and War Work Campaign. Brown is a member of the First Unitarian Parish, Woburn; Boston Chamber of Commerce, Boston City Club, Vesper Country Club, Delta Kappa Epsilon Club of New York and of the Masonic fraternity. For hobbies, he has golf, hunting and fishing.

He was a student at Brown University, 1890-93, following a severe illness which interrupted his course at Tech.

*BROWN, JOHN CLIFFORD VI G
Died January 16, 1901.

HE was born March 28, 1872, at Portland, Maine, and died in Los Angeles, California. His early education was obtained in the public schools of Portland, and in them he prepared for the Massachusetts Institute of Technology, which he entered in 1889. As to his life and work while at the Institute, the following lines, from one who knew him well at that time, give a very vivid impression:

"John Clifford Brown was one of the youngest and brightest men in '93. He was, perhaps, slightly too boyish in appearance to impress those who did not know him well with the full maturity of his mind, and too uncompromising to be what is called popular. These things, no doubt, kept him from holding many class offices, without lessening, however, his interest in class affairs, regarding which he was not only always willing, but also able to give valuable advice.

"As a student, his work was well above the average. He was intellectually very capable, indeed, though the formal record of his work may not show this; for he was full of the animal spirits of youth, and could not always resist the proffered frolic. Indeed, these same animal boyish spirits and the sincere love of companionship were his worst enemies, and forced him unconsciously to undertake, in addition to his studies, more than his physique was intended to stand. As a student outside of Tech, he devoted considerable time to history and military affairs, and was able to talk very interestingly on such matters relating to his country, although he was not often willing to do so. Ornithology, also, seemed particularly to attract his attention.

"During his Freshman year he roomed on Charles street and for the remaining three years on or near St. James avenue. His room was always open to friends or strangers, and his hospitality never failed. As intimated previously, he never held an office of prominence in the student body, though he was class auditor for three years, and a member of many committees.

"Socially, 'Jack' Brown was kind-hearted, sympathetic, and true, though independent. He had the natural ability to command respect and devotion wherever he chose. He was quick to discover and admire real ability in others, wherever found; and the friends he made during his four years at the Institute were from all walks of life. He was a member of the Theta Xi fraternity, K_2S Sopho-

more Society, Hammer and Tongs Club, and the Electrical Engineering Society. He was American to the core, and martial in spirit; and it was not a surprise to those who knew him best that his death occurred while serving his country in the army in time of need."

Upon leaving the Institute, Brown entered the employ of the Metropolitan Telephone Company of New York, serving in various capacities until he was promoted to the position of assistant engineer. He was always interested in military affairs, and soon after reaching New York, joined the Seventh Regiment, and was advanced to the grade of captain.

On the breaking out of the Spanish War, he was made captain of Company C, Eighth Regiment, of the New York Volunteer Infantry. With his regiment he went to Chickamauga, and remained there until his regiment was mustered out in November, 1898. On January 22, 1899, he was commissioned first lieutenant of Company F, Two Hundred and Third New York Volunteer Infantry, and was mustered out March 25, 1899.

On June 22, 1899, he enlisted as a private in Company B, United States Engineer Corps, and was at once ordered to Manila, where he arrived August 13, 1899, having sailed there on the transport *City of Vaza.* He was at once ordered to the north of Luzon, where he saw a great deal of active fighting. His work was highly commended by his superior officers, especially that of plotting and mapping in the northern part of the island of Luzon. While in active service, he was promoted to the rank of corporal.

He returned to Manila somewhat weakened from the exposures and rigors of his active campaign, was taken sick with dysentery, and ordered to the hospital at Manila, where he remained until ordered home, November, 1900. On his homeward voyage, although very weak, he would not give up; and by the exercise of his great will-power he went through the voyage without allowing himself to be taken to the hospital. He repeatedly stated that, as soon as he reached this country, and could once more see his mother and the other members of his family, he would get well. One of his brothers was spending the winter with his wife in California, and they met him upon his arrival in San Francisco, and, seeing at once his weak condition, telegraphed immediately for his mother. When Mrs. Brown reached California, she said she would never have recognized her son. He weighed less than ninety pounds, and was so wasted as to remind his mother of the Indian famine sufferers. About a week

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after her arrival in San Francisco, Mrs. Brown was taken ill with pneumonia, and died after a few days' sickness; and in a few days after her death his grandmother also died in Portland. Jack had begun to improve somewhat, but his mother's death had a very bad effect upon him. As soon as he was able, his brother went with him to Southern California. The first reports after his arrival there were quite encouraging, but the fatal disease had so weakened him that it was soon seen that there was no hope for him, and upon January 16 he died in Los Angeles.

His funeral took place in Portland upon January 26. He was buried with military honors, with pall-bearers selected from among the soldiers of the regular army at Fort Preble; and a corporal's guard escorted the remains to the family lot. At the grave a corporal's salute was fired.

He was a member of the Racquet and Tennis Club and University Club of New York and the Cumberland Club of Portland, in all of which he was a popular and prominent member.

While in the Philippines, he kept a voluminous diary; and this, together with many letters which he wrote home, has been printed for private circulation among the immediate friends, and is said to be most interesting.

BROWN, T. MORRIS; A.B. (1892-93) VI
24 West 40th Street, New York City.
Salesman, Keloinetor Corporation.
Born, February 7, 1869, Baltimore, Maryland.
Married, June 2, 1892, Charlotte G. Crawford.
Home, 38 North Burnett Street, East Orange, New Jersey.

AFTER leaving Tech Brown entered the steel business. He was a draftsman with the Walker Company, of Cleveland, for five and one-half years, and with the Wellman-Seaver-Morgan Company of Cleveland, for one year. For five and one-half years he was an electrical engineer with the Brown Hoisting Machinery Company of Cleveland. For the next fifteen years he was employed as salesman for the Ingersoll Rand Company, of Cleveland and St. Louis, and subsequently held similar positions with the Taylor Iron & Steel Company, High Bridge, New York, the Titan Steel Casting Company, of Newark, New Jersey, the Lamson Company of New York, the Bontempi Rust Proofing Company, and Keloinetor Corporation.

Before coming to the Institute Brown spent five years at Johns Hopkins University, receiving his B.A. degree there in 1891.

He is a member of the Boston Society of Civil Engineers and of the Phi Kappa Psi Fraternity.

BRYANT, ERNEST CALVIN; B.S. I G

Middlebury, Vermont.
Professor of Physics, Middlebury College.
Born, April 22, 1867, Manchester, New Hampshire.
Married, March 30, 1895, Sarah B. Palmer. Child, Ruth Mary.
Home, 6 Storrs Avenue, Middlebury, Vermont.

Bryant graduated from Middlebury College in 1891.

"WITH Canadian Bridge and Iron Company, Montreal, July 1, 1893, to December, 1894. With Middlebury College January 1, 1895, to date as professor of physics and mathematics. Spent the college year 1913-14 at Cambridge University, England, working under Sir J. J. Thomson. Spent the summer of 1921 at Yerkes Observatory. While in London, in 1914, I ran across Frank S. Badger, and enjoyed several visits with him."

Bryant is the author of "Color Transparency of Ray Filters used at Yerkes Observatory" and "The Ideal High School Course in Physics"; has delivered various addresses on physics and astronomy before scientific societies. He is Fellow of American Association for the Advancement of Science; member, American Physical Society, Phi Beta Kappa Society and Chi Psi fraternity. His favorite recreation is tennis.

BUCHANAN, LEONARD BROWN VI G

147 Milk Street, Boston, Massachusetts.
Head of Industrial Department of Stone & Webster, Inc.
Born, March 2, 1873, Woburn, Massachusetts.
Married, October 21, 1913, Ethel Louise Winn. Children, Elizabeth Olive, Lowell Winn, Ruth Miriam.
Home, 10 Bennett Street, Woburn, Massachusetts.

CONTINUOUSLY with Stone & Webster since 1893. Buchanan's headquarters have always been at Boston. Chronologically, his connections with that organization have been: first two years, electrical laboratory; third year, electrical engineering, L. A. Chase & Company; 1896 to 1922, in charge, Research Laboratory; 1899-10, in

charge, Fort Hill Chemical Company, Rumford, Maine; 1900-18, treasurer, and subsequently president, of that company; 1909 to 1916, president, General Electro-Chemical Company; 1903 to 1920, vice-president, and subsequently president, Chase-Shawmut Company; 1907, president Eibel Process Company; 1907 to 1910, Stone and Webster's representative in charge of Cell Drier Machine Company, Tudor Manufacturing Company and Rhode Island Fiber Spool Company; 1913 to date, vice-president and trustee, Connecticut Valley Lumber Company; 1914 to date, chairman, board of directors, Chicago, Wilmington and Franklin Coal Company; director, River Smelting and Refining Company; and president, Proprietors of Lyman Bridge.

"I beg to enter for qualification as the '93 Jack of All Trades under one employer without claiming to be the master of any, having been engaged in:

"Practical electrical engineering and construction; practical chemical engineering and construction; examination of hundreds of invention processes and propositions, some of which would do Wallingford credit; manufacture of chlorate of potash, alundum abrasive, electrical fuses, theatre switch boards, rail bonds, cable clips, junction box fillings, ground clamps, labelling machines, wrenches, textile machinery, spools, attachments for paper machine, pulpwood, lumber, typewriter ink and ribbons, electrolytic line, paint, concrete houses, subtarget guns, electric brakes, spark plugs; repair of electrical machinery; operation of toll bridge; mining of coal.

"In addition but not as established businesses I have been concerned in the development or manufacture of: carbon tetrachloride; ozone and ozenizen; peat fuel; household refrigerators; oil gas; electrolytic bleach; and carbo-electric generators.

"All as Stone and Webster's hired man employed in their business; yet notwithstanding being with them thirty years, I have never yet operated a public utility (except toll bridge) and was only in Mr. Rogers' ('93) division of Engineering and Construction three weeks, the first three that I worked for the concern in September, 1893. It will be admitted that public utilities and engineering and construction are Stone and Webster's principal efforts; therefore, if I do not qualify as '93's jack of all trades, I wish to be listed as the most exclusively side liner ever connected with a big business.

"Rogers, member of firm of Stone and Webster, and Crosby, Dawes, Taintor, Fabyan, Morss, Reed and Lamb seen comparatively

frequently on street or at club. Up to time of Crosby's death I met him quite frequently from 1893 on.

"I suggest the rise of Howard L. Rogers '93 to membership in the firm of Stone and Webster as head of the Engineering and Construction Division is a noteworthy achievement and reflects credit upon our class."

In his home town Buchanan has served as a trustee of the Public Library and of the Choate Hospital, and in 1915 as Acting Chief of the Fire Department. During the recent war, Buchanan was a member of the State Commission of Public Safety on Industrial Survey; district chairman, Red Cross Drive, and gave assistance to Government departments on submarine defense, gas masks and air planes.

He is a member of the American Electrochemical Society; American Association for Advancement of Science, N.G.S.; Life Member, I.A.C.E., N.E.P.A., C.W. Club and of the Engineers, Exchange and Press Clubs of Boston, Towanda Club of Woburn, and Fire Chiefs Club of Massachusetts.

Motoring, radio, and fire department work are his amusements.

BUCHHOLZ, CHARLES EGMONT I G

211 McGill Street, Montreal, Canada.

Director, Geo. Hall Coal and Shipping Corporation.

Born, October 11, 1870, Pottstown, Pennsylvania.

Married, January 4, 1900, Helen R. Corwin. Children, Katharine W., Helen M.

Home, 731 Sherbrooke Street, Montreal, Canada.

"WITH the N.Y.C. Railroad System 1893 to 1904, in various engineering positions from rodman at $35.00 per month to division engineer of the Middle Division, N.Y.C. Railroad, Headquarters, New York and Albany. Entered the employ of Irish Brothers, Philadelphia, Pennsylvania, in 1904, coal operators, and through various stages became vice-president of the Rochester & Pittsburgh Coal & Iron Company with headquarters at Rochester, New York.

"Three years ago I associated myself with the Geo. Hall Coal Company of Canada, Ltd., which together with five other corporations has been merged into The Geo. Hall Coal & Shipping Corporation with offices at 211 McGill Street, Montreal, Quebec, owning twenty steamers, seventy thousand acres of timber land, and doing the selling and transporting of the coals of the Rochester & Pitts-

burgh Coal & Iron Company, the Pittsburgh Coal Company and Lehigh Valley in the eastern provinces of Canada. In addition I am president and principal owner of a coal mining company in Pennsylvania and associated with other coal companies in the U.S.A.

"Not having been very closely in touch with the New Technology in recent years, I hardly feel qualified to advise or criticise. It is my opinion that the Institute is doing excellent work."

During the war Buchholz spent three days a week in the Fuel Administration department at Washington with Dr. Garfield.

He is a member of the Theta Xi, and Hammer and Tongs fraternities, two golf clubs, two yacht clubs and eight social clubs. Golf, yachting and music are his amusements and hobbies.

While living in Watertown, he served as chairman of the Bridge Commission for the City of Watertown, and chairman of the Transportation Committee of the Watertown Chamber of Commerce.

BUCK, ARTHUR AUGUSTINE; LL.B. VI G

General Electric Company, Schenectady, New York.
Assistant Manager of the Patent Department, General Electric Company, Schenectady, New York.
Born, April 6, 1870, Bucksport, Maine.
Married, April 15, 1903, Elizabeth G. Davis (deceased.)
Home, 9 Lowell Road, Schenectady, New York.

"DURING the first summer vacation, worked as a carpenter; during the second summer vacation, worked as an agent, selling maps; during the third summer vacation, worked as a draftsman at the Lynn Works of the General Electric Company.

"On graduation, entered the Testing Department of the General Electric Company, in the Lynn Works. Remained with the General Electric Company one year.

"In August, 1904, was appointed assistant examiner in the United States Patent Office. Remained in Washington five years, during which time I studied law and was graduated from law school of Columbian, now George Washington, University in 1897, with the degree of LL.B. Admitted to the bar in 1899.

"Entered the employ of the General Electric Company in the fall of 1899 as an assistant attorney in the Patent Department at Schenectady, New York. Have been there ever since. Have recently been made Assistant Manager of the Patent Department."

He is a member of the American Bar Association, and American

Patent Law Association; of the Mohawk Club, Mohawk Golf Club and Schenectady Boat Club, all of Schenectady, New York; and of the University Club, New York City.

In responding to the call for the Thirtieth Reunion, Buck enclosed his postal with a letter which reads as follows:

"I enclose herewith the postal which you sent me for signature with your letter about the reunion of the class of '93 next summer.

"As you will note, I have indicated on this postal that I shall not be able to attend. I began to have very serious trouble with my eyes a couple of years ago, and I am able to see so little that I can get around only in my accustomed haunts, and with a little assistance even there.

"I hope the reunion will be a very successful affair, and I wish that I could come."

BUCKLEY, JAMES PINKNEY (1889-92)

24 Rugby Place, Elgin, Illinois.

Married, October 18, 1900, Liliane R. Bogart. Child, Elizabeth M.

AT the time the 1909 Catalogue was compiled Buckley was general manager of the American Brazing Company of Michigan, located at 527 Franklin Street, Detroit.

He served as seaman on the U.S.S. *Yosemite* during the Spanish War, later as member of the Michigan State Naval Brigade, with rank of ensign. He is a member of the University Club, Detroit Boat Club, Hammer and Tongs and Theta Xi fraternities.

BULLARD, JOHN RICHARDS, JR. (1889-90)

No address.

In 1909 address was Dedham, Massachusetts.

BUMSTEAD, DALE (1891-93) IV

811 North First Avenue, Phoenix, Arizona.

Ranch Operation.

Born, December 13, 1870, Annawan, Illinois.

Married, April 7, 1897, Eva R. Whitten. Child, Dale, Jr.

SHORTLY after leaving Tech, Bumstead became connected with various mining companies in Colorado, the then Great Independence Mine among others. He entered the service of the duPonts in 1897, remaining with them for twenty-five years during which time he

studied the use of explosives at their plants in Colorado, Pennsylvania, Delaware and Illinois. He is now engaged in developing a ranch in Arizona. In 1917-1918, he went to Russia, as representative of the company, to make a commercial survey of the country. In 1918, was Lt. Col. in the Ordnance Department, U.S.A., Executive Staff, Procurement Division at Washington.

He is a member of the Western Society of Engineers, Army Ordnance Association, Chicago Engineers Club, Oak Park Country Club, American Geographic Society. Bumstead has hunted big game over most of North America. Hunting, fishing and exploration are his hobbies.

BURBANK, ROBERT SUMNER (1889-90) V
Pittsburgh, California.
Electrical Engineer.
Married; three children.
Home, P. O. Box 746, Antioch, California.

BEFORE going to California in 1907, Burbank was chief electrician at the McLean Hospital, Waverley, Massachusetts. He has been located at Oroville and at Westwood, California, and is now in the electrical department of the rolling mills at Pittsburgh, California.

BURCKHARDT, HORATIO WOLCOTT (1890-93) VI
525 Eggleston Avenue, Cincinnati, Ohio.

1909 Catalogue gives his business as with Burckhardt & Company, engaged in manufacture of oils.

*BURKE, JOHN RYAN I G
Died April 27, 1920.

THE first year after graduation Burke was in the employ of Edward S. Shaw, consulting bridge engineer, and was especially interested in that part of his work connected with making surveys, soundings and borings for the New Bedford, Fairhaven Bridge. In June, 1894, he entered the employ of the Massachusetts Harbor and Land Commissioners, as transitman. While with them his work in connection with the construction of the Cape Cod Canal, with the many interesting and some novel engineering problems which developed, made a very strong appeal to him. In June, 1907, he resigned from the service of the State and entered the field of contracting, following the line of work with which he had been identified since graduation, —

dredging, and river and harbor improvement. His office was in Boston. On October 10, 1900, Burke was married to Harriet Sears Hallett, and they had a daughter, Margaret.

Outside of his work Burke's principal interest was in music; he spent much time in voice culture and had done concert and church work. As an outdoor recreation, he was very fond of yachting.

BURRELL, GEORGE ANSEL (1889-90)
Whitman Street, East Bridgewater, Massachusetts.
With Carver Cotton Gin Company.
Born, 1869.
Married, 1896, Louise M. Keith; 1905, Lidia M. Morse. Children, Laurence K., Barbara H., Wentworth D., Jarvis C.
Home, 617 Plymouth Street, East Bridgewater, Massachusetts.

"WITH Carver Cotton Gin Company since leaving Tech. Town Treasurer since 1913." Burrell's eldest son attended Tech.

BURTT, ARTHUR MORTON (1889-92) IV
New Elks Building, Los Angeles, California.
Superintendent of Construction.

CADWELL, WILLIAM HARRY (1889-93) II
The Jackson Mills, Nashua, New Hampshire.
Resident factory manager of the Jackson Mills division of the Nashua Manufacturing Company, Manufacturers of Cotton Cloths.
Born, August 13, 1872, Nashua, New Hampshire.
Married, June 10, 1896, Martha Lorraine Cotton. Children, William Dexter, Andrea, Lucille.
Home, 10 Berkeley Street, Nashua, New Hampshire.

"IN January, 1893, went to work in the Jackson Mills, drafting and working through the different departments. In 1898 was appointed superintendent and in October, 1900, was made agent, which position I now hold."

As factory manager for the Jackson Mills, Cadwell supervised the manufacture of large quantities of drills, sheetings and flannels for the United States Army and Navy during the recent war. He is a member of the National Association of Cotton Manufacturers, the New England Textile Club and Masonic fraternities. (32d degree and Knights Templar.)

CALDWELL, GEORGE ANDREWS (1889-90)
No address.

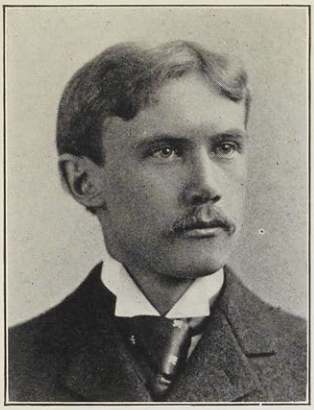
IN 1909, Caldwell was with the American Telephone and Telegraph Company at 15 Dey Street, New York City. At that time he gave his permanent address as Newburyport, Massachusetts — but mail to both addresses has been returned.

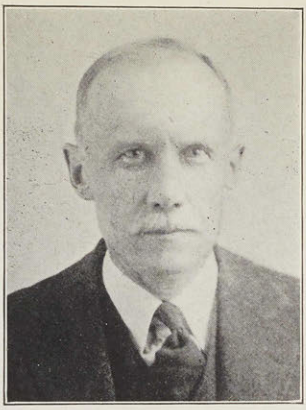
CALKINS, LEIGHTON; A.B., LL.B. (1890-92) II
25 Broad Street, New York City.
Lawyer, member of the firm Bard and Calkins.
Born, March 12, 1868, Buffalo, New York.
Married, June 22, 1898, Nella Bond Whiton. Children, Wolcott 2nd (deceased), Mary Bond, Dorothy Whiton.
Home, Plainfield, New Jersey.

"AFTER a two-year special course at Tech, I entered the Harvard Law School in the fall of 1892, graduating in 1895. I at once entered the law office of Hornblower, Byrne and Taylor, New York City, leaving in 1901 to form the law firm of Bard and Calkins, with Albert S. Bard. We get along together as well today as we did at the start, twenty-one years ago. We have been located all this time at 25 Broad Street. I became interested in the game of golf at an early date, in 1896. I was president of the Plainfield Country Club for six years and a trustee for ten years. I have been president of the New Jersey State Golf Association, Secretary of the Metropolitan Golf Association, Metropolitan Handicapper, and a member of the United States Golf Association Executive Committee. I am the author of its Constitution, and was a member of the American Committee which, in association with the Royal and Ancient Golf Club of St. Andrews, revised the rules of play in 1908.

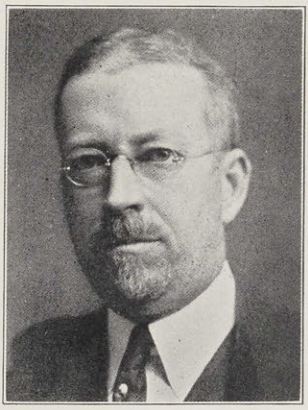
"I have lived in Plainfield, New Jersey, for the past twenty-two years and have interested myself in local affairs there. I am a member of the Board of Governors of the Hospital, and of the Community Chest, which I organized in 1919, a federation of the local welfare societies.

"I became interested in politics in 1912, entered the Plainfield Common Council for a two year term in 1913, was elected Mayor of the City on the Republican ticket in 1914, and served three terms from 1915 to 1920 inclusive. I was in my second term when this country entered the world war, and it devolved upon me to

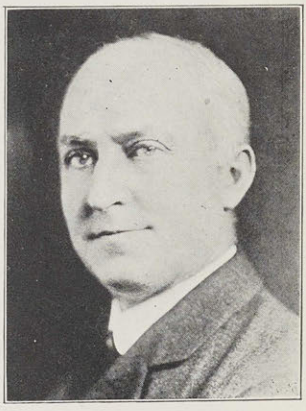




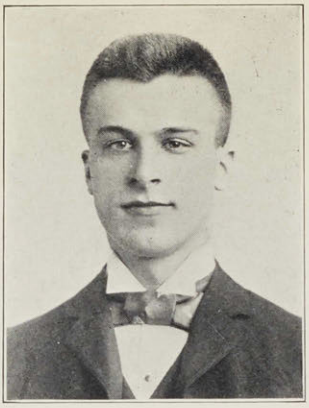
Charles E. Buchholz



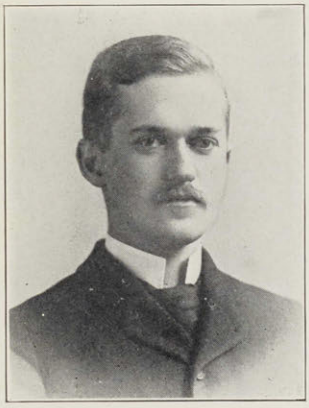
Leighton Calkins

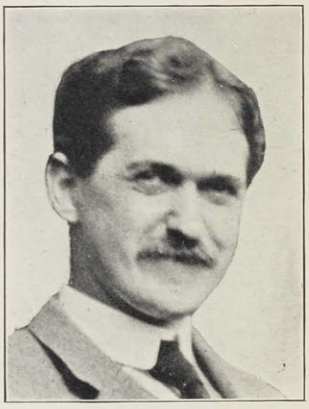


Edward B. Carney

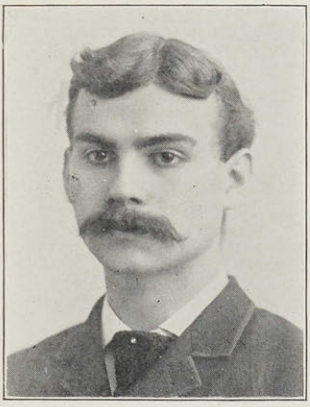


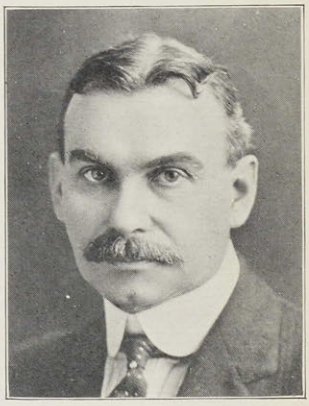
HARRY L. CLAPP





JOHN C. CLAPP





WILFRED A. CLAPP

organize innumerable local war activities. During the war period I was also vice-president of the New Jersey State Council of Defense, which had the difficult work, as State agent of the Federal War Labor Board, of deciding what new building operations should be permitted as a war necessity. Our powers were practically omnipotent. Nobody could build a thing in the State of New Jersey, from a bank or factory down to a woodshed or hen-coop, without our consent.

"I assisted in 1915 in organizing the New Jersey State League of Municipalities, an association of mayors and municipal officials, for the study of municipal problems and the improvement of municipal administration. I have been president of the League, and though no longer a mayor, I enjoy honorary membership in its executive committee.

"While Mayor of the City of Plainfield I urged the erection of a Municipal Building or City Hall. Backed by a unanimous Common Council regardless of party affiliation, the project was started in 1916, and brought to completion on January 1, 1919, despite delay and difficulties due to the war, and labor unions. As chairman of the building committee I had my hands full in those days, with my other duties as mayor, and war activities. The street corner critics and frog-level men found all the fault they could, but the business of erecting a beautiful building went on just the same. Over its entrance we inscribed these words: 'Erected by the people to inspire zeal for the Common Welfare and dedicated by them to the cause of Just and Capable Government.'"

He is a member of the Association of the Bar, New York City; of the Plainfield Country Club and Plainfield Commuter's Club. He has written numerous articles and pamphlets on municipal government and on political subjects, such as the Right of Free Speech; the Sunday Blue Laws; Censorship of Moving Pictures, etc.; also, in particular, on the game of golf. Author of the Calkins System of Handicapping, officially adopted by the United States Golf Association and many district associations and clubs. And naturally, his hobby is Golf.

*CALLAHAN, DENNIS E. VI G

Died November 28, 1900.

ENTERING the Institute of Technology in September, 1899, with the class of '93, he early showed himself an apt scholar, with a special

proficiency in mathematics, and stood among the best mathematicians in the class at the time of his graduation from the Electrical Engineering course, in June, 1893. The following year he entered the service of the city of Boston as electrical engineer in the Wire Department. His ability early attracted the attention of those with whom he was associated in this department; and his excellent work received merited recognition when, in 1896, he received the appointment of assistant superintendent of the Water Department, having charge of the extension of the water system of the city of Boston. This position he filled with credit and ability up to the time of his death, which occurred November 28, 1900, at the age of twenty-nine years. His death was due to rheumatism, contracted during the performance of his duties, which frequently made it necessary for him to be exposed in all kinds of weather.

CALLENDER, HARRY REA (1889-90)

737-740 Pacific Mutual Building, Los Angeles, California.
General Insurance; Private Investments.
Born, April 13, 1871, Chicago, Illinois.
Married, January 11, 1900, Ada Patterson. Children, Harry Rea, Jr., Virginia Patterson.
Home, 2313 South Hope Street, Los Angeles, California.

"AFTER leaving Tech, I was for a short time in a stock brokerage office, and early in 1892 went to New Mexico on a cattle ranch for my health. In the fall of that year I came to Los Angeles, where I have lived ever since.

"In 1897 I formed a partnership with Gilbert S. Wright under the name of Wright & Callender, Real Estate and Insurance, afterwards incorporated in 1900 as Wright-Callender-Andrews Company, and participated in much of the growth and development of the community, being a director or officer of the Los Angeles Chamber of Commerce, Municipal League, Realty Board, Building Owners and Managers Association, and a number of private corporations. Have done nothing brilliant or spectacular; but have helped in a small way in the wonderful development of the community and am raising a family of which I am proud. At present am the senior partner of Callender-Manwaring Company in the General Insurance business, specializing in industrial insurance."

He is a member, Society of Colonial Wars and Sons of the American Revolution; California Club, Los Angeles Athletic Asso-

ciation, Los Angeles Country Club, Crags Country Club, San Joaquin Gun Club, Old Colony Club, Automobile Club of Southern California; Southwest Museum, etc., and is a member of the Masonic fraternity (32 degree mason, shrine).

His amusements and hobbies are mountaineering, fishing, hunting, golf and travelling.

*CAMPBELL, JAMES FAIRMAN (1889-91)

JAMES FAIRMAN CAMPBELL of Philadelphia died on November 26, 1913. Campbell was with the class during the freshman year, leaving to enter Lehigh University, where he remained one year. He then took up law at the University of Pennsylvania Law School, graduating with the class of 1895. For eighteen years he was actively engaged in the practice of law in Philadelphia, in which profession he achieved marked success. He took an active interest in Republican politics and served for a time as special counselor for the Commonwealth of Pennsylvania. He was a member of the Pennsylvania Bar Association, Sigma Phi Fraternity, and of various clubs in Philadelphia and New York. In 1902 he married Bertie M. Plunkett; they had two children, Marie Josephine and James Goodenough, and resided at Oak Lane, Philadelphia.

CARNEY, EDWARD BULLARD II G

18 Shattuck Street, Lowell, Massachusetts.
Treasurer, Lowell Institution for Savings.
Born, June 8, 1871, Lowell, Massachusetts.
Married, September 7, 1904, Lovina Rice Butterfield. Child, George Butterfield (deceased).
Home, 25 Plymouth Street, Lowell, Massachusetts.

"WITH City Engineer in Lowell, Massachusetts, from 1895 to 1906, and at that time member of Boston Society Civil Engineers. 1906 to date, in present position. My grandfather, James G. Carney, started this savings bank in 1829, and at his death in 1869, was succeeded by my father, George J. Carney, and at his death in 1906 I came into office. I tackled the job with some knowledge of engineering but no banking experience. My training at Tech and the eleven years in city work fitted me in good shape for the ethics of banking, and in sixteen years the bank has increased from five millions to eleven millions. I was treasurer of the Board of Trade for five years. Am now treasurer of Lowell Guild and Lowell

Dispensary. I acted as treasurer of the Red Cross during the War drives. My work has taken me away from Tech men except as I meet them occasionally."

Carney has been president of the Merrimack Valley Technology Club and is now president of the Massachusetts Savings Bank Officers Club.

He is a member of the Massachusetts Savings Banks Association, Vesper Country Club, Boston City Club, and of the Masonic fraternity. He has given talks on Savings Banks. His hobbies are camping, fish culture, forestry and carpentry.

During the war he was treasurer of the Second Red Cross War Fund, Lowell, Massachusetts.

CARNEY, GEORGE SYDNEY (1889-91) VIII
300 Chestnut Street, Philadelphia, Pennsylvania.
Salesman, New England Cotton Yarn Company.

IN 1915 Carney's address changed from 219 to 300 Chestnut Street, Philadelphia—that is the only news received from him since 1909 when he wrote that he was "single and happy."

CARTER, MARIAN HAMILTON; B.S. (1890-93) VII

MAIL returned from her former address, 504 West 143d Street, New York City.

*CARTER, PHILIP GREENLEAF (1890-92) II
Died, April, 1917.

FROM the Portland (Maine) *Telegram* of May 6, 1917: "Philip G. Carter, notice of whose sudden death in Chicago by apoplexy recently appeared, was born in Portland about 45 years ago, the exact date having escaped the memory of the writer, and passed his early boyhood in this City. He was the only son of Capt. Henry J. Carter and Mrs. Hannah (True) Carter, their only daughter, Clara, dying when six years of age. Captain Carter will be remembered by older residents of Portland as an ex-soldier in the Civil War, who was one of the earliest presidents of the local Army and Navy Union. After the death of her husband, Mrs. Carter removed

to Malden, in the schools of which and at Holderness, New Hampshire, Philip received his early education, finishing it by a course at the Massachusetts Institute of Technology.

"After the acceptance of a position in the office force of the Winslow Brothers Company, of Chicago, one of the largest manufacturers of structural iron and steel in the country, Mr. Carter made that city his home up to the time of his death, with the exception of a few years passed in New York as the Eastern representative of the company with which he was connected.

"Possessed of an active mind, a good education, habits of industry, and a sense of conscientious devotion to the interests of his employers, Mr. Carter was entrusted with positions of responsibility and always justified the confidence reposed in him. He was careful, painstaking, thorough and correct, and in the performance of the duties incumbent upon him spared no exertion of mind or body. I think his faithfulness, his fidelity, was one of his chief characteristics. If he once became your friend—and his was certainly a friendly disposition—the attachment seemed to increase with acquaintance, and was not of an ephemeral nature. Although habitually rather quiet and retiring and gentle in his manner, he was very companionable, especially in his times of relaxation, or when the mood possessed him.

"Mr. Carter was a born mathematician, inheriting that mental quality, I think, from his maternal grandfather, Mr. J. G. True, a wholesale dealer on Commercial Street for many years. The rapidity and correctness with which he produced mysterious results when playing with figures was amazing to me. The best of his mind was strongly toward scientific subjects and he kept himself thoroughly informed upon important matters transpiring in the scientific world. In this respect he was a very instructive man to talk with, having a pleasing way of imparting information.

"Mr. Carter was at one time an active member of the National Guard of Illinois, and participated in the efforts to maintain law and order during the railroad strike in Chicago a few years ago. In his political proclivities he generally acted with the Republicans, but was independent in his thinking. In religion he was an Episcopalian, if I mistake not.

"He leaves a mother, Mrs. Hannah J. Carter, a wife, Mrs. Florence (Bell) Carter, and a son, also named Philip, aged eight."

C. G. B.

CARTER, WILLIAM WOOD X '93 VI '94 G

Great Plain Avenue, Needham, Massachusetts.
Chemical Engineer.
Born, November 18, 1870, Boston.
Home, Needham, Massachusetts.

FROM 1894 to 1898, Carter was chemical engineer for Jobbins and VanRuymbeke Glycerine Process, of Aurora, Illinois, being engaged in the erection and operation of plants in the Middle West for Proctor and Gamble, N. K. Fairbanks, Globe, Colgate, Kirkman, Fairchild, Shelton and numerous other soap houses. For the following five years he operated a research laboratory and a town lighting plant in Needham, which he built and owned with his brothers, until they sold it to the Edison Electric Illuminating Company.

From 1903 until 1914, when the plant was closed, by the war, Carter was president and half owner of Newton Company, Watertown, Massachusetts, operating a by-product wheat starch process which he had perfected.

Since 1918, he has been in consulting chemical engineering practice, with a laboratory at Needham; and is president of Chemical Process Company and of Industrial and Research Laboratories, and engineer of the Colasta Company, all of Boston. He has taken out several patents on waterproofing leather board, fiber board and other paper products, also, on the synthetic insulating rosen, Colasta, and he has several patents pending.

During the war, he worked on the manufacture of oxygen and argon at Malden. He is a member of the American Chemical Society; of the Cannibal Club and Masonic fraternities. His amusements and hobbies are music, science and mathematics.

CASE, LAWRENCE WELLS (1889-90)

Highland Park, Connecticut.
Paper Manufacturer. President of Case Brothers, Inc.

UPON leaving Tech he entered the employ of Case Brothers, and has been connected with that company most of the time since. He was elected president in 1908 to succeed his father, Mr. A. Wells Case, who died in October of that year. He is also vice-president of Case & Marshall, Inc., manufacturers of paper in East Hartford, Connecticut; treasurer of the Tonica Springs Company of Highland Park, owners and distributors of the Highland Tonica and Highland Rock Waters; and member of firm of A. Wells Case & Son, manu-

facturers of the Case outward thrust propeller wheels for boats. He has given considerable time to the improvement of machines and processes used in the manufacture of paper. (From 1909 Catalogue.)

CHADWICK, HENRY MASON (1889-90)
47 Winter Street, Boston.
Assistant Engineer of Construction, The Boston Bridge Works, Inc.
Born, August 1, 1871, Boston, Massachusetts.
Married, August 2, 1897, Helen L. Cary.
Home, 17 Ivy Road, Malden, Massachusetts.

AFTER leaving the Institute, Chadwick was clerk and draftsman for the Child Cutter and Press Company of Boston, makers of paper cutting machinery. He worked one year as draftsman and checker at the Berlin Iron Bridge Company and the New England Structural Company. Since 1893 he has been with the Boston Bridge Works as draftsman, assistant chief draftsman and assistant engineer of construction. He is a member of the Boston Society of Civil Engineers and the National Geographic Society. He has written numerous poems and nature sketches for various periodicals and newspapers, including "Education", Boston "Transcript" and "Puritan's Monthly", a book of verse, "Lyrics of the Soil" (by Leander Leghorn), and in collaboration with Mrs. Chadwick has published a book of poetry entitled "Far from the Stone Streets". Writing and tinkering are his hobbies.

During the war, his company furnished structural steel for the Fore River Shipbuilding Company, Squantum Destroyer Plant and Worthington Pump Works.

CLAPP, HARRY LINCOLN; LL.M. X G
1228 Monadnock Building, Chicago, Illinois.
Married, June 3, 1902, Louise Grant Saxton.

HE entered the U. S. Patent Office at Washington, D. C., in the fall of 1893. While holding position in that office he attended the Columbian Law School for four years, and received the following degrees: LL.B in 1896; LL.M in 1897, and Master of Patent Law in 1898. In 1900 he became associated with the firm of Pierce & Fisher of Chicago, Illinois, engaged in practice of patent and trade mark law exclusively, and a few years later was admitted to partnership in that firm. He is a member of the Phi Delta Phi (legal fraternity) and Delta Upsilon.

CLAPP, JOHN COTTON (1890-94) IV

2A Park Street, Boston, Massachusetts.
Architect, associated with Fox and Gale, Architects.
Born, October 27, 1870, South Boston.
Married, September 4, 1906, Amy L. Crosby. Children, Richard Homer, John Gilbert, Leah.
Home, 42 Salcombe Street, Dorchester, Massachusetts.

"FROM 1894 to 1900, worked as architectural draftsman successively in the offices of Fox & Gale, Boston; Charles A. Platt, New York, Architect and Landscape Architect; Peters and Rice, Boston, and Shepley, Rutan & Coolidge, Boston. Since then engaged in private practice and associated with the office of Fox & Gale. The work has been chiefly domestic, covering a large number of town and country houses with the landscape architecture of their grounds, as well as a number of municipal and semi-public buildings. During the war worked as architect upon the buildings of the Watertown Arsenal. This work comprised the architectural treatment of most of the new buildings and the designing of the Welfare Building and the Headquarters Building additions.

"As an excellent academic basis for further study the Tech training has been of great benefit to me.

"My work has not brought me in intimate contact with many '93 men."

Clapp is a member, Boston Society of Architects and American Institute of Architects.

CLAPP, WILFRED ATHERTON I G

Headquarters Sixth Corps Area, 1819 Pershing Road, Chicago, Illinois.
Civil Engineer and Superintendent of Construction, Quartermaster Corps, United States Army.
Born, August 6, 1869, Dorchester, Massachusetts.
Married, June 3, 1896, Mary Ashton Kelley. Child, Janet Ashton.
Home, 3415 West 60th Street, Chicago, Illinois.

"IMMEDIATELY after graduating I went to work as a rodman in a party of the United States Coast and Geodetic Survey at Middletown, Connecticut, engaged on a topographic survey of the Connecticut River, until winter set in.

"For the next year and a half I worked on a triangulation and survey of the Town of Winchester, Massachusetts, in conjunction with S. D. Dodge, '93, on which work K. S. Sweet, '93, was also engaged during a summer vacation.

"For six years I was with the Metropolitan Water Board of Massachusetts on the Wachusett water supply project, as computer on triangulation, leveller on the aqueduct, inspector at the reservoir, and assistant engineer on 'stripping' of reservoir, living at various times in Clinton, Northboro, and West Boylston, Massachusetts. In 1902, after taking a civil service examination, I received appointment as civil engineer and superintendent of construction in the Quartermaster Department, United States Army, and have stayed on that job ever since.

"My first station with the Quartermaster Department was in Portland, Maine, building new forts in Portland Harbor, including cleaning out the woods, and constructing the necessary quarters and other buildings, as well as the roads, sewer systems, water systems, wharves, etc.

"Being then transferred to San Francisco Harbor, I found similar work was in progress there, but the work was to be done by prisoners from the military prison there, instead of by contract as had been the custom in Maine.

"This construction being concluded just as the war began, my work shifted again to contract work, erecting temporary barracks, hospitals, camps, etc. During ten years in California my work did not bring me in contact with any '93 men, but I managed to see a few in flying visits to San Francisco, of whom I now remember J. A. Emery, W. T. Barnes, W. W. Patch, and F. F. Skinner, all of 'Course I'.

"About two years ago I was again transferred, this time to Chicago, being with the Quartermaster Sixth Corps Area, at the Corps Headquarters in that city, the Corps Area covering the states of Wisconsin, Illinois and Michigan."

Clapp is a member of the Boston Society of Civil Engineers, American Society of Civil Engineers and Western Society of Engineers (Chicago) and of the Military Order of the Loyal Legion.

During the war, Clapp was at Fort McDowell, California, in charge of construction of hospital and other buildings, and of water and sewerage systems of camp sites for the Q. M. C. War Department.

DEDICATION

To the Science Tech teaches
To the practice it preaches
To the day when its sheep-skins we won
To the thirty years after
To the hearts full of laughter
When the yarns of Life's sheep-skins are spun.

J. R. S.

CLARK, FARLEY GRANGER; M.E. (1889-90)
92 King Street East, Toronto, Ontario, Canada.
Consulting Engineer.
Born, 1871, Palmer, Massachusetts.
Married, June 21, 1905, Jeannette H. Miller.
Home, 251 Russell Hill Road, Toronto, Ontario.

FOLLOWING one year at the Institute, Clark studied at Cornell for three years and graduated in 1894 with the degree of M.E. He then entered the electrical construction business; in Providence, Rhode Island, in 1895 with the Electric Railway Company and in 1896 with the Electric Light Company. He then went to New York City, and for part of 1897 was with the Crocker Wheeler Company before entering the employ of the Metropolitan Street Railway Company as electrical superintendent of the 96th Street power station. He remained with this company for several years, except for a year and a half spent with the U. S. Engineer Corps in the Philippines during the Philippine Spanish War and the Philippine Insurrection. From 1903-05, electrical engineer with Westinghouse, Church, Kerr and Company; 1905-10, New York tunnel electrification for the Pennsylvania Railroad Company; 1911-12, superintendent of power, Westinghouse Electric and Manufacturing Company. From 1912 to date, in Toronto, as chief engineer for the Toronto Power Company, Toronto and Niagara Power Company, Electrical Development Company, Toronto Railway Company, Niagara Falls Gas and Electric Transmission Company and Gas Processes, Ltd.; in 1922, he entered private practice as consulting engineer.

He is a Fellow of the American Institute of Electrical Engineers; member, American Society Mechanical Engineers, Institute Electrical Engineers, American Electrochemical Society, American Institute Mechanical Engineers, Canadian Engineering Association, National Electric Light Association; Engineers Club, New York; Engineers Club, Toronto; Ontario Club, Niagara Club, Arts and Letters Club, several golf and country clubs and Masonic bodies.

*CLARKE, THOMAS CURTIS (1892-93)
Died, May 25, 1921.

THE following notice appeared in the Proceedings of the American Society of Civil Engineers for October, 1921:

"By the death on May 25th, 1921, of Thomas Curtis Clarke, the Engineer Officers' Reserve Corps lost an officer of the highest

standard; the country lost a citizen who had given completely of his services as an engineer in peace and war and who was an advocate and real worker in the cause of National defense; and the Society lost a member who, in his specialty of metallurgical research, can ill be spared to the Profession.

"Thomas Curtis Clarke was born in Philadelphia, Pa., on December 11th, 1873, his father having been the late Thomas Curtis Clarke, Past-President, Am. Soc. C. E. The son of one of the most distinguished engineers of his time, Mr. Clarke, like his brothers, was educated in the Engineering Profession, having taken a special course in Metallurgy at the Massachusetts Institute of Technology. After leaving the Institute, he became for a time a Chemist at the furnaces of the Union and South Works of the Illinois Steel Company, but returned to the Institute to complete some special studies. For a few years after leaving the Massachusetts Institute of Technology, in 1893, Mr. Clarke served as an Inspector and Assistant Engineer on the construction of the Third Avenue and Willis Avenue Bridges across the Harlem River in the City of New York. Between 1897 and 1902, he was engaged in business in which, however, his engineering education was used. In 1902 and 1903, he was Treasurer of the Imboden Coke and Embree Iron Company, and had engineering charge of the construction of the furnaces of the Embree Iron Company. In 1904, Mr. Clarke was made Treasurer and Assistant General Manager of the Astoria Steel Company. Later, he was asked to take charge of the construction and installation of the Illinois Steel Company's coal washers at Danville, Ill., a position in which his unbounded energy and experience was given full play. During 1905, he was engaged as Assistant Superintendent of the Lackawanna Iron and Steel Company, at Lebanon, Pa., in charge of five blast furnaces and by-product coke-oven plants. It was during this period, that he became interested in the specialty of coal and coke by-products, which specialty led him into much foreign travel, in investigations of by-product coal and coke plants in Germany, France, and other Continental countries. In 1912, Mr. Clarke became interested and took charge of the development of the Niagara Company, comprising a by-product coke plant, at Buffalo, N. Y. This plant was being built under German plans and patents, but was stopped, however, at the outbreak of the World War in August, 1914, as it was being constructed largely with German capital. Mr. Clarke had become interested in military affairs as early as 1895, when he joined the National Guard of the State

of New York and was an active student of military affairs and operations. In 1915 and 1916, foreseeing with a military eye, and aided by his experience in Germany and his acquaintance with the German people, that it was inevitable that the United States would become an active participant in the World War, he devoted his energies and time to the preparedness movement. In 1916, he assisted in the organization and training of engineer battalions in New York City and was commissioned a Captain in the Engineer Officers' Reserve Corps when it was formed through a provision of the National Defense Act of 1916. On the entry of the United States into the war, Capt. Clarke, with many other engineers of New York City, was ordered to the First Officers' Training Camp at Fort Oglethorpe, Ga., in May, 1917. On his graduation from this camp in August of that year, he was named as Adjutant of the 104th Engineers, a regiment organized from this training camp. Later, he was promoted to be Lieutenant-Colonel and assigned to the 110th Engineers, which was the Divisional Engineer Regiment of the 35th Division. This regiment went overseas with the Division in the spring of 1918. When Col. Cheney was promoted to the rank of Brigadier General, Lt.-Col. Clarke succeeded to the command of the regiment with the rank of Colonel from August 7th, 1918. Col. Clarke commanded this regiment in the Meuse-Argonne Offensive. The regiment performed the usual work of an engineer regiment attached to an active combatant division and, in addition, it was called as infantry into the lines where it took over a sector of the front line in the active offensive then in progress. Col. Clarke occupied as his post of command a German 'pill-box,' the German artillery directing their fire thereon, making it necessary for him and his immediate staff to change their post of command during the height of a severe artillery fire. The regiment acquitted itself with great credit with a loss of more than three hundred men in this emergency, two officers and seven enlisted men having received the Distinguished Service Cross for their work. The regiment was cited for its service.

"Early in Col. Clarke's service with the American Expeditionary Forces, and before the Argonne Offensive, he was decorated with the Croix de Guerre by the French Government as a result of his voluntary participation in a raid which broke through the German lines. After the Armistice, Col. Clarke was relieved from duty with the 110th Engineers, and was appointed Acting Deputy Director of the Army Transport Service, at Tours, France, serving as such

until March 31st, 1919, when at his own request he was ordered home and mustered out of the service. His interest, however, in future preparedness, and in the Engineer Officers' Reserve Corps, prompted him to take a commission as Colonel in that Corps, the rank which he held at the time of his lamentable death. After being honorably discharged from the service, Col. Clarke became Vice-President of the International Coal Products Company, in direct and immediate charge of the engineering work. He held this position until his illness required him to relinquish it. An operation for an intestinal disorder resulted in pneumonia which caused his sudden death, his fatal illness having been caused undoubtedly by the fact that he had been gassed repeatedly while in service and when pneumonia developed, medical skill could not save him."

CODMAN, JOHN STURGIS; A.B. VI G

30 India Street, Boston, Massachusetts.
Treasurer of Fabreeka Belting Company.
Born, February 25, 1868, Boston, Massachusetts.
Married, April 25, 1901, Susan Sargent. Child, Rachel Sturgis.
Home, Quail Street, West Roxbury, Massachusetts.

HE graduated from Harvard in 1890, with the degree of A.B. In the summer of 1893 served a short period with the United States government's coast survey and in February, 1894, entered the service of the American Telephone & Telegraph Company in Boston as an engineer, in which capacity he remained until 1897. After a year spent abroad studying singing he returned to Boston and formed a partnership with Robert S. Hale as a manufacturers' agent, under the name of Hale & Codman. With his partner he was active in the agitation which began at that time for scientific rates for light and power and he wrote a number of articles on the subject for the press. This association, however, was dissolved in 1904, when he organized the firm of J. S. Codman & Company and thus served, for three years, as specialist on the rate question for the General Incandescent Arc Lamp Company of Pittsfield, Massachusetts. During 1907-10 he was Boston manager of the Holophane Company, and in 1910-11 acted as consulting engineer for the Holophane Company and the National Electric Lamp Association. In 1911 he became associated as vice-president and sales manager with S. R. Bailey & Company, Inc., of Amesbury, Massachusetts, man-

ufacturers of electric automobiles and pioneer makers of carriages in New England. Mr. Codman is now treasurer of the Fabreeka Belting Company of Boston, manufacturers of power belting. He was active in the movement toward better lighting conditions which resulted in the formation of the Illuminating Engineering Society, and was its vice-president for two years and chairman of the finance committee for one year. He contributed regularly to the technical press in the field of illuminating engineering, particularly to the "Transactions of the Illuminating Engineering Society," the "Illuminating Engineer" and "The Electrical World." The mathematics of illumination was the chief subject of his contributions to these journals. He is one of the most prominent advocates in Massachusetts of the single tax and has urged that reform in articles for newspapers and magazines as well as in public addresses and he is vice-president and a member of the executive committee of the Massachusetts Single Tax League. In November, 1915, he delivered before the Special Commission on Taxation of Massachusetts, an address, "How to Lessen the Burden of Taxation in Massachusetts," which was later published. Besides separate contributions on taxation and industrial questions printed at various times in the "Single Tax Review," the Boston "Traveller," the "Dial" and elsewhere, he contributed a series of seven articles on unemployment and its relation to taxation for the "Freeman," a weekly of New York City, during August and September, 1922. He is interested also in the free trade and anti-vivisection movements and delivered an address on the latter subject, "Vivisection and the Public Conscience," at the Boston Public Library in January, 1922, which has been published by the New England Anti-Vivisection Society. During the European war he was manager of the New England Belgian Relief Fund from 1915 to 1918 and also treasurer of the Children's Tin Box Fund and the Children of America's Fund. As a member of the national committee of the American Civil Liberties Union, he takes a keen interest in the attempt to preserve the constitutional guarantees of free speech, free press and free assembly. He is a member of the Council of the National Economic League and a member of its special committee on taxation.

Despite his many business and professional cares and his other interests, Codman has perfected himself as a baritone singer. His musical studies were begun in Boston and continued under the preceptorship of famous masters in London and Florence. He first appeared as a public singer in 1899 at a recital in Boston. From

then until 1916, when he sang at the Nashua, New Hampshire, festival, he took part in a number of private and public concerts. His familiarity with songs of many different styles and his ability to sing freely in English, French, German and Italian enables him to render programs having unusual variety. The "Daily Advertiser," the "Globe," the "Transcript" and the "Herald" of Boston all paid tribute to Mr. Codman as a singer, the "Transcript" declaring his voice to be "an exceedingly beautiful organ."

He has been a member of the American Institute of Electrical Engineers, the National Electric Light Association, the Electric Vehicle Association, the Electric Motor Car Club of Boston (treasurer), a director of the Free Trade League, and the New England Anti-Vivisection Society (vice-president). He is a member of the Tavern and Harvard Clubs of Boston and New York; the Boston City Club and is a former member of the Tennis and Racquet and Somerset Clubs of Boston and the Boston Athletic Association.

COGGIN, FREDERICK GRISWOLD (1889-92) II

946 Montrose Boulevard, Chicago, Illinois.

Married, October 26, 1896, Kathryn Crane.

COGGIN was mine superintendent at Redridge, Michigan, in 1909, and our Catalogue of that year gives the following account of him:

From August, 1892, to January, 1893, he was erecting engineer with the Standard Smelting & Refining Company, Durango, Colorado. From January to August, 1893, he conducted a private engineering business in Denver, Colorado. In 1893-94 he took a special course at Michigan College of Mines. August, 1894, he was appointed superintendent of Atlantic Stamp Mill; January, 1900, appointed superintendent of Baltic Stamp Mill; June, 1902, appointed superintendent of Champion Stamp Mill. Erected the Atlantic Mill, designed and erected the Baltic Mills, now in charge of all three. In 1899 and 1900 was also in general charge of erection of Redridge dam. (This dam is notable as being a combined steel and concrete gravity dam, the first of its kind in the world: See *Engineering News* of August 15, 1901—Ed.) He has been supervisor of Stanton township, Houghton county, Michigan, and in 1902, became president of the Copper County Engineering Co.

*CONNABLE, ERNEST MATTHEW (1889-90)

Died in March, 1900.

AFTER leaving the Institute Ernest M. Connable engaged in the manufacture of machinery at Dayton, Ohio. Later he became treasurer of the Chattanooga Powder Company of Chattanooga, Tennessee, which post he held at the time of his death, in 1900, from anaemic poison.

CONNABLE, FRANK LEE (1889-90)
duPont Building, Wilmington, Delaware.
Vice-President E. I. duPont de Nemours & Company.
Born, June 20, 1869, Xenia, Ohio.
Married, February 22, 1904, Julia K. Hosford. (Deceased January, 1924.)
Home, Rock Farms, Wilmington, Delaware.

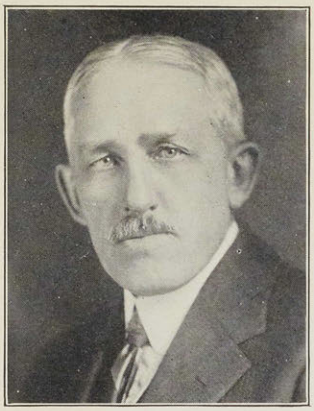
"ALWAYS in manufacturing enterprises and much diversified. At Xenia, Ohio; Chicago; Chattanooga, Tennessee; Wilmington, Delaware; New York City." In 1904, Connable became associated with the E. I. duPont de Nemours Powder Company at Wilmington, Delaware, his company having sold its interests to the duPont Powder Company. He is president of some, and director in numerous other corporations. He is a member of the Wilmington Club, Wilmington Country Club; Union League of Philadelphia; of the Manhattan, New York Yacht, and Bankers Clubs of New York; Tech Club of New York; Garden City Golf Club, Garden City, Long Island; Rumson Country Club of Rumson, New Jersey; and many others. His hobbies are yachting, golf and "deep sea" fishing.

Regarding Tech training, he says that he has benefited decidedly from it; also, that he deeply regrets that his contact with '93 men has been so slight.

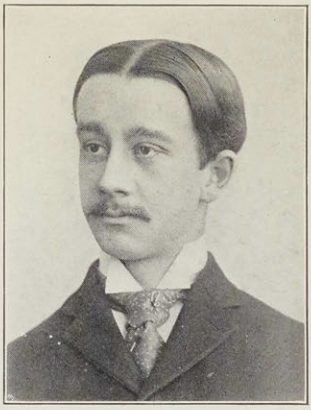
During the War, Connable, as a member of the executive committee and vice-president of the E. I. duPont de Nemours Company, was in charge of special purchasing for the Government.

COOK, CHARLES NOURSE X G
Woonsocket, Rhode Island.
Treasurer, Woonsocket Institution for Savings.
Born, 1872, Woonsocket.
Married, 1894, Mary Crosby Alley.
Home, Woonsocket, Rhode Island.

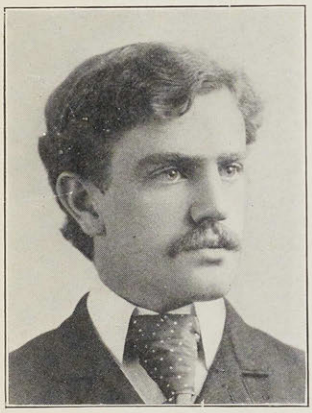
IN 1894, Cook entered the employ of the Silver Spring Bleaching and Dyeing Company and rose through various departments until



JOHN S. CODMAN

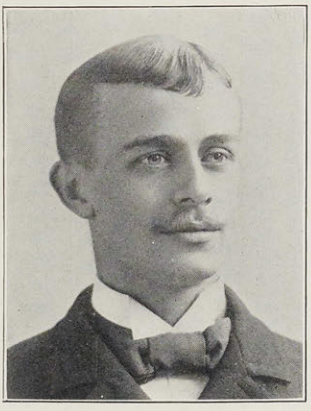


CHARLES N. COOK

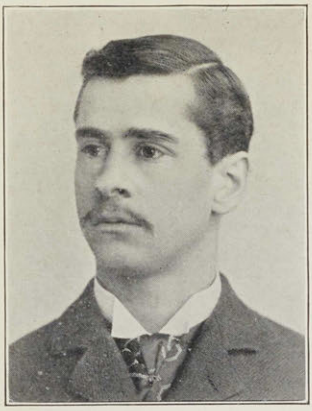


*FREDERICK E. COX

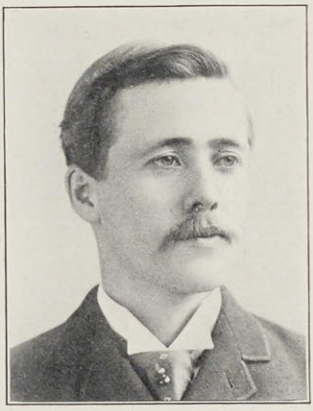
*NATHANIEL R. CRAIGHILL



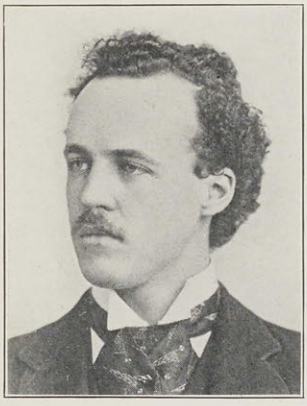
*WILLIAM W. CROSBY

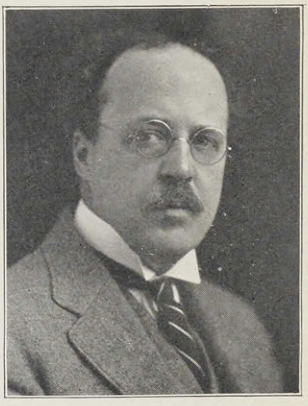


COURTLAND R. DARROW



HENRY B. DATES





ALBERT G. DAVIS

he became president, which position he has held for twenty years or more.

Since 1906, he has, also, been manager of the Slatersville Finishing Company. He is treasurer of the Woonsocket Institution for Savings, secretary of the Woonsocket Hospital at Woonsocket, Rhode Island, and director of the Rhode Island Hospital Trust Company, Providence. During the war, treasurer and campaign manager for local Red Cross. He is a member of the Woonsocket Chamber of Commerce; Cumberland, Providence Art Club, Hope Club, all of Providence, Rhode Island; the Wannamoisett Country Club and Brae Burn Country Club. Golf is his hobby.

COPELAND, WILLIAM ROGERS; A.B. (1892-93) VII
City Hall, Milwaukee, Wisconsin.
Bacteriologist, Chemist, Sewerage Commission.
Married, October 10, 1899, Anne Horton Young. Child, Elizabeth Abbot.
Home, 863 Marietta Avenue, Milwaukee, Wisconsin.

"LEFT Tech in April, 1893, to take a position at the Experiment Station at Lawrence, Massachusetts, of the Massachusetts State Board of Health, serving as bacteriologist for four years; held position of bacteriologist and manager of Experimental Water Filtration Plant at Pittsburgh for three years; served as bacteriologist and later as Superintendent of Experimental Water Filtration Plant of Philadelphia for three years; served as bacteriologist of the Sewage Testing Station, Columbus, Ohio, for one year; as assistant engineer, Bureau of Filtration, Pittsburgh, Pa., for three years; had charge of Water Filtration Plant (water softening and mechanical filtration) for three years in Columbus, Ohio; October 1, 1911, employed as chemist by Metropolitan Sewerage Commission, New York." For several years he has been bacteriologist and chemist for the Sewerage Commission of Milwaukee.

Copeland was graduated from Harvard in 1892, and took a year's post-graduate work with the Class. He has delivered lectures to the students of the Institute; the Ohio State University, and the University of Pennsylvania, and has written many technical articles for the engineering news and other trade journals. He is an Associate of the American Society of Civil Engineers. For three years he saw military service as a member of the Pennsylvania National Guard.

*COX, FREDERIC EDWARD IV G '95

Deceased.

AFTER leaving the Institute he was employed for several years as architectural draftsman in St. Louis, Missouri, at first by E. A. Manny, architect, and later by William B. Ittner, supervising architect of the Board of Education. For a number of years he was engaged in the practice of architecture at Council Bluffs, Iowa. He was married on January 2, 1901, to Gertrude Watkins.

*CRAIGHILL, NATHANIEL RUTHERFORD

II '93 VI '94 G

Deceased.

AFTER graduating, Craighill was for some time in the employ of the Victoria Cotton Mills at Newburyport, Mass., and later with the Bell Telephone Company of Philadelphia, Pa. He was then made professor of mechanical engineering at A. & M. College, Raleigh, N. C. Resigning from this position he worked for a short time in the sewer engineering department of the city of Boston and then became assistant engineer with the U. S. Government on sewer and water works at Havana, Cuba. Returning to the United States, he was engaged for a time on the construction work of the Murphy Third Rail System through the Baltimore and Ohio tunnel at Baltimore, Md. He then took up teaching as professor of science and higher mathematics at Powhatan College, Charlestown, West Virginia. He then went to New York City, where he was engaged upon some general consulting work with George T. Hanchett, '93; was for a time associate editor of the *American Electrician;* was with the General Electric Inspection Company, and in the calculating department of the N. Y. Central Railroad. He was engineer on preliminary work of the Miami Light, Power and Traction Company at Lebanon, Ohio, and then was in charge of the calculating and testing departments of the Mechanical Appliance Company at Milwaukee, Wis. Later he was professor of engineering at the University of Montana, in charge of the School of Engineering.

CROMWELL, MARTIN JOHN SPAULDING; M.D. (1890-93)

The Latrobe, Charles and Read Streets, Baltimore, Maryland. Physician.

*CROSBY, WILLIAM WYMAN II G

Died, March 19, 1922.

William Wyman Crosby died at his home in Arlington from influenza and heart trouble, after an illness of two weeks. Will Crosby was born at Woburn, Mass., on March 3, 1871, and was the son of William and Florence Crosby. After studying in the Woburn schools he entered the Institute in 1889 and was graduated from Course II in 1893. The next two years he spent at the Institute as an assistant instructor in Mechanical Engineering, leaving there in 1895 to become superintendent of Power and Plant for Otis Allen & Son of Lowell. During the last year of his connection with this company he also served as Lecturer and Professor of Mechanical Engineering at the Lowell Textile School, of which he was appointed Principal in 1898, which position he held for several years until he was appointed factory manager of the Brighton Mills at Passaic, New Jersey. He returned to Boston in 1907 and since that time had been actively engaged in the practice of mechanical engineering in that city, first being associated with the F. W. Dean Company, Mechanical Engineers, but for the greater part of the time having been a partner in the firm of H. M. Haven & William W. Crosby, Engineers & Architects, 40 Court Street, Boston, Massachusetts, specializing in mill and industrial lines and in water works. In his earlier professional work, Crosby gave considerable attention to mercerizing processes and to the testing of textile fabrics and lectured upon textile matters before the Society of Arts and the Twentieth Century Club of Boston and numerous organizations. He also presented papers upon the "Metric System," "A Piece of Cloth" and "European Echoes." He held at one time or another numerous public positions, including that of chairman of the School Committee of Woburn, trustee of the Choate Memorial Hospital of Woburn, Park Commissioner of Arlington, chairman of the Committee on Revision for the Arlington Building Laws and chairman of the Building Committee for the recently completed junior high school in Arlington Heights. In 1921 he was engaged by the City of Woburn to devise means of replenishing the rapidly disappearing water supply of the city, with authority to proceed in his own way. As a boy, and later, he had spent much time in the vicinity of Horn Pond and was thoroughly familiar with it. It was there that he supervised the installation of the new pump at the Pumping Station and restored the water supply. Before the World War he

served as a member of Company G of the Fifth Regiment of Massachusetts Volunteer Militia, and during the war he was active in the design of power plants for mills making textiles for the army and for tin smelting plants. He was a member of the Masons, the Winchester Country Club, the Engineers Club, the American Society of Mechanical Engineers and the National Association of Cotton Manufacturers. In 1909 he was married to Marian Shaw of Woburn, who died four years ago. He was to have married Mrs. Estella M. Abbot of Lexington later in the month he died. He is survived by a son, William W. Crosby, Jr., born July 1, 1912, and by his mother, Mrs. William Crosby, both of Arlington. Crosby was always an active and popular member of the Class, a regular attendant at its dinners and one whose loss is keenly felt by his associates in business and in the Class.

CURRY, GEORGE ARCHIBALD (1889-90)
No address or information.

CUTLER, NATHAN PEARSON, JR. (1889-90)
With Haverhill Blacking Company, Haverhill, Massachusetts.
Manufacturer of stains and blacking for shoes.
Home, 3 Arlington Place, Haverhill, Massachusetts.

CUTLER, WILLIAM WORCESTER (1889-93) VI
14 Fulton Street, Boston, Massachusetts.
Vice-President, Eastern Drug Company.
Married, Alice Rust.
Home, 479 Commonwealth Avenue, Boston.

DANA, GEORGE FRINK (1889-93) X
Elmwood Place, Cincinnati, Ohio.
President, The Peerless Foundry Company.
Born, October 12, 1870, Malden, Kanawha County, West Virginia.
Married, April 15, 1903, Clarissa Halstead. Children, Stephen Frink, Marshal Murat Halstead, Clarissa Halstead.
Home, Old Indian Hill Road, R. D. No. 1, Station M., Cincinnati, Ohio.

DANA went to work for the Peerless Freezer Company in May, 1893, he bought out his partners in 1897, the firm name becoming

Dana and Company. He is still located in Cincinnati and is now president of the Peerless Foundry Company. He is a member of the American Society of Mechanical Engineers; Theta Delta Chi fraternity; Queen City Club, Pillars and Business Men's Club of Cincinnati.

DANIELL, JOSHUA THOMAS; S.B. (1890-91) III
Laurium, Michigan.
Artist.

DANIELL has not been heard from for a number of years. The following is taken from the 1909 Catalogue:

He followed the profession of mining for six years, holding the positions of assistant surveyor at Osceola mine, Opeche, Michigan, and of chemist, blast furnace foreman, and general smelter foreman with the Boston & Montana Company at Great Falls, Montana. He began studying art in Europe, in 1898, and entered Julien's studio, Paris. For the past ten years he has devoted his time to art, and nine years of that period were spent in Europe, where he visited all the countries except Turkey, Greece and Sweden. He is a graduate of the Michigan College of Mines, Houghton, Michigan, and is a member of the American Art Association, Paris.

DARROW, COURTLAND ROGERS I G
City Hall, New London, Connecticut.
Superintendent of Streets, New London, Connecticut.
Born, December 31, 1868, Waterford, Connecticut.
Married, April 24, 1899, Alice L. Hall.
Home, Waterford, Connecticut.

THE first three years after graduation were spent by Darrow in municipal work under the City Engineer of Norwich, Connecticut, and the two following years he was engaged in electric railway engineering at Waterbury, Connecticut. From 1898 to 1900, he was resident engineer at Albany, New York, on the construction of the Albany & Hudson Railway, and from 1901 to 1905, at New London, Connecticut, engaged in building the Groton Water Works and the Groton and Stonington Street Railway. After a year in contracting work, Darrow was appointed to his present position.

He is a member of the Connecticut Society of Civil Engineers, Massachusetts Highway Association, the Masons and Elks.

DATES, HENRY BALDWIN; E.E. VI G '94

Case School of Applied Science, Cleveland, Ohio.
Professor of Electrical Engineering (in charge of the department).
Born, July 15, 1869, New Britain, Connecticut.
Married, December 28, 1896, Harriet Burt Haskell. Child, Gertrude H.
Home, 3071 Euclid Heights Boulevard, Cleveland, Ohio.

"STARTED at Newark, New Jersey, works of Westinghouse Electric and Manufacturing Company. First job (July, 1894), testing fan motors—good job for hot weather. Later moved to East Pittsburgh works and occupied various positions for next two years—foreman of section, chief inspector, etc.

"Fall of '96 went to Potsdam, New York, to organize Electrical Department of a new technical college and have been in educational work ever since, at the same time being engaged in outside professional work. Positions held are: Clarkson School of Technology, Potsdam, New York, 1896 to 1903; University of Colorado, Boulder, Colorado, 1903 to 1905, Dean of College of Engineering and in charge of Electrical Department; since fall of 1903, in present position at Cleveland, Ohio. Taught special classes during the war to especially fit men for Signal Corps Radio work.

"Have carried on consulting work in engineering fields, mostly allied to electrical engineering, and have been somewhat active in local sections of national engineering societies as member and official, and indulged in some controversies with public regulating bodies on professional questions. One of my most interesting engagements has been in connection with work with Boards of Education on illuminating problems directed toward the conservation of vision of school children.

"Not many '93 men in my home town, but have had an active acquaintance with many Tech men and it has been full of pleasure and profit. Entered Tech with '93 and continued with '93 for three years. Had to stay out one year on account of health and hence graduated with '94. My closest personal friends and my happiest remembrances of Tech are associated with '93. That's where I feel at home.

"Needed—a teachers' training college in connection with an Engineering College of highest grade. There is no place to-day where a man, who wishes to enter the Educational Field in En-

gineering, may go to prepare himself for such work. No school or university or college to my knowledge which even pretends to train teachers of engineering subjects. Why should not the Institute offer such opportunity? It's badly needed. It's worth while, and worthy of the effort of the best Technical Institution in the world."

The Case School of Applied Science has conferred upon Dates the Honorary Degree, Electrical Engineer. He has written papers for technical journals on "Preparation of Engineering Students for Army Service," "Practical Applications of Principles of School Lighting," etc., and is editor of a book in preparation on the Art and Science of Illumination.

He is a member of the American Institute of Electrical Engineers, Illuminating Engineering Society, Ohio Electric Light Association; Electrical League of Cleveland, Cleveland Council of Sociology and University Club. His hobbies are boating and fishing, fly fishing in particular.

DAVIS, ALBERT GOULD; LL.B., LL.M. VI G

General Electric Company, Schenectady, New York.
Vice-president, General Electric Company.
Born, October 19, 1871, Brooklyn, New York.
Married, June 15, 1898, Agnes H. Shaw. Child, Lillian Gould.
Home, 112 Lenox Road, Schenectady, New York.

IN 1893-94, Davis was engineer for the Davis-Colby Ore Roaster Company, and then for two years was assistant examiner in the United States Patent Office at Washington. In 1896, he began the practice of law in Washington; December 27, 1897, was appointed to the position of manager of the patent department of the General Electric Company and moved to Schenectady; vice-president of the company since 1919. He participated actively in forming the Radio Corporation of America in 1919, and in negotiating with foreign radio companies to improve American standing in radio, 1919-20. He has been in close touch with modern developments in electrical engineering, particularly as applied to incandescent lamps and radio. He is a director, Radio Corporation of America, Victor X-Ray Corporation; a Fellow of the American Institute of Electrical Engineers; a member American Bar Association, the American Patent Law Association, the New York State Bar Association; and of the Mohawk Club and Mohawk Golf Club of Schenectady; the Univer-

sity Club, Adirondack League and Bankers Club of New York; and Fishers Island Sportsmen's Club, New York.

Davis studied law at the National University Law School from 1894 to 1897, and received the degrees of LL.B. in 1895 and LL.M. in 1897.

DAVIS, CARLETON EMERSON I G

113 Monument Circle, Indianapolis, Indiana.
Manager, Indianapolis Water Company.
Born, November 14, 1869, Brookline, Massachusetts.
Married, September 25, 1900, Grace L. Bennett.

AFTER graduation from the Institute, he was engaged continuously in water supply and water power work in the New England states until 1900, when he was appointed resident engineer in charge of surveys, plants and construction of the Cedar Grove Reservoir—eight miles of 60 inch riveted steel pipe line and 3000 feet of pressure tunnel for Board of Water Commissioners of Newark, New Jersey. In 1904-05, he was engineer for the Isthmian Canal Commission at Panama, in charge of installing water supply and sewer systems in all towns along the canal. Upon his return from Panama he became department engineer in charge of the reservoir department of the Board of Water Supply of the City of New York, and was in charge of the construction of the great Askohan Reservoir in the Catskills, which has a storage capacity of one hundred twenty billion gallons. On September 15, 1912, he resigned to accept appointment as chief of the Philadelphia Bureau of Water, which position he held until June 1, 1923, when he became manager of the Indianapolis Water Company, Indianapolis, Indiana. He is a member of the American Society of Civil Engineers, New England Water Works Association, Franklin Institute, and of other professional organizations; Engineers' Club of New York; Engineers' Club, Manufacturers' Club and City Club of Philadelphia. His hobby is farming.

As to possible improvement at the New Technology, he says: "As a reasonably loyal Tech graduate, I feel that the Alumni should use their influence to caution Tech against an undue multiplicity of courses useful largely as a factor in selling erudition instead of education."

DAVIS, IDA SABIN

(See Ripley, Mrs. William Z.)

DAVIS, WILLIAM EDWARD, JR. IV G '95

Address unknown.

AFTER graduating from the Institute in 1895, he spent about two years as draftsman with D. H. Burnham & Co., architects, Chicago, Illinois. For the next eight years he was resident engineer for the American Luxfer Prism Company of Philadelphia, Pennsylvania, after which he was for some time superintendent with Shepley, Rutan & Coolidge, architects, Boston.

DAWES, HERBERT NATHAN II G

205 Congress Street, Boston, Massachusetts.
President and Treasurer, Nightingale and Childs Company.
President, Putnam-Morrill Company.
Born, February 5, 1872, Hudson, Massachusetts.
Married, February 5, 1923, Mrs. Clare Martha Langan.
Home, 7 Ravenscroft Road, Winchester, Massachusetts.

"AFTER graduation my first job for a few months was with the Middlesex County Engineer as transitman. Then for a few months was with Motive Power Department, Fitchburg Railroad. Latter part of 1894 and during 1895, was assistant engineer with Massachusetts Highway Commission. March 1, 1896, went with the firm of S. C. Nightingale and Childs as estimator, draftsman, etc. Their business then was mill supplies, stone crushers and equipment, road building machinery and steam pipe and boiler covering. I devoted my time particularly to the development of the covering end of the business which the firm eventually specialized in, giving up the machinery lines. With the insulation business we naturally drifted into handling asbestos materials and later took on a line of engineering specialties.

"In 1902, the business was incorporated and I became vice-president of the Nightingale and Childs Company, and after a few years assumed the general management of the business. Became also treasurer in 1907, and upon the death of Mr. Childs in 1919, president and treasurer. We are not manufacturers but contractors and manufacturers' agents. We furnish and install all kinds of heat and cold insulation, 85% magnesia, asbestos, cork, etc. We also sell asbestos materials, including asbestos shingles and lumber and engineering specialties, such as steam separators, traps, exhaust heads and feed water heaters. Another quite extensive line is ventilators and ventilation equipment. Other lines, too, such as insu-

lated industrial ovens, portable metal buildings and refractory cements.

"Other business interests: am president of the Putnam-Morrill Company, manufacturers of high grade aprons. With a few of my friends, am interested in growing grape fruit and pineapples in Porto Rico. This latter rather unimportant interest gives me a nice excuse for an occasional trip to this delightful little island and several of my vacations during the past fifteen years have been spent there.

"In 1901, I took my first trip abroad with 'Billy' Crosby, '93, and evidently became infected with a travel microbe, for it seems to have been necessary for me to take some sort of a trip every year to maintain a happy frame of mind. One of my trips abroad was made with Harry Latham, '93, in 1914. Among other places visited was Egypt, where we wandered about for a month most happily and (so Harry says) just escaped stepping into old 'Tut's' tomb which every one is talking about today. Harry and I were confirmed bachelors then, but Harry did some very effective preliminary work in the field of romance during our trip, as a result of which he joined the benedicts the following year with great success.

"Of course no one in '93 ever expected me to marry, myself included. But 'wonders never cease' and I have to report that in 1922 I commenced to take notice and on February 5, last year, consummated a contract for life with my new 'boss'. Mrs. Dawes was Clare Martha Langan of Brookline, formerly of Chicago."

Dawes writes that his amusements and hobbies are horseback riding, golf, mountain climbing, swimming, fishing and travel.

He is a member of the American Society of Mechanical Engineers; Boston Chamber of Commerce; Engineers' Club, New York; Engineers' Club, Exchange Club, Boston; Winchester Country Club, Tedesco Country Club and Appalachian Mountain Club.

DAY, PHILIP BALDWIN (1889-93) II

No address.

Married, April 26, 1899, Ernestine Albery. Child, Philip Baldwin, Jr.

FOR a number of years Day was engaged in stock farming at "Hickory Hill Farm," Glasgow, Rockbridge County, Virginia.

About 1909, he entered the automobile business, being southern

sales agent for Studebaker Bros., with headquarters at Memphis, Tennessee.

Mail has been returned from his latest known address, Olympia, Washington.

DEARBORN, GEORGE KNIGHT IX G

77 Summer Street, Boston, Massachusetts.
New England Manager of the Giant Portland Cement Company of Philadelphia.
Born, October 9, 1872, St. Louis, Missouri.
Home, 411 Marlborough Street, Boston, Massachusetts.

DEARBORN engaged in telephone work for many years after graduating from the Institute. He was with the American Telephone & Telegraph Company at Chicago, Pittsburgh and New York; with New England Telephone & Telegraph Company at Boston; with the Barrett Company at New York, Montreal and Boston; and is now New England manager of the Giant Portland Cement Company of Philadelphia. He is a member of the Delta Psi fraternity.

DEITERING, CHARLES HUNTINGTON (1891-92) IV

705 Olive Street, St. Louis, Missouri.
Architect.
Married, December 10, 1902.

DEITERING was in the employ of Isaac S. Taylor, architect, St. Louis, Missouri, for seven years. He then entered private practice, and has erected for clients residences, stores, factories and some hotels. He is past-treasurer of the St. Louis Architectural Club.

DEMOND, CHARLES DENNY III G

704 Main Street, Anaconda, Montana.
Consulting Metallurgical Engineer.
Born, December 12, 1869, Boston, Massachusetts.
Married, June 25, 1896, Margaret P. Bixby. Children, Edith Gilchrist and Martha Bixby.

AFTER a year and a half in the Concentrator and Assay office of the Boston & Montana Consolidated Copper and Silver Mining Company, at Great Falls, Montana, Demond was for five years assistant to Professor Richards of the Institute in work connected with the preparation of Professor Richards' book upon Ore Dress-

FOREWORD

AND NOW THAT WE ARE FIFTY YEARS OLD, AND PAST, WE CAN SAFELY TAKE STOCK OF OUR TRAINING AS AFFECTING OURSELVES AND OUR "LITTLE JOURNEY IN THE WORLD."

Have we reached the heights of influence and of attainment we had wished for, at twenty-one?

No! Why should we? We were greatly deceived in what we thought we wanted.

Are we disappointed at this apparent failure?

No! There are great compensations.

Have we kept the faith; to earnestly strive and do?

Yes! But we all have limitations.

Have we found the Golden Fleece?

No! Dame Experience has taught us much; it is not the only quest. Much of life's labor is without profit.

Have we made a success of it—of life?

Yes! But we must use a yard stick of average dimensions for measuring our abilities and disabilities.

What reward have we won?

Happiness in living—we hope! In knowing the value of and feeling appreciation for the exact—for the true.

In realization of the worth of the constructive.

In analyzing with charity the apparent obstructive.

In coördinating the exactness of the measured rule with the "rule of thumb"—making allowance for the teachings of experience.

In having a proper and profound respect for creation; both of Nature and of man.

In finding ourselves masters; not of great aggregations of capital or of labor, but of average impulses, of average intellects, of average ambitions, of average accomplishments.

Yes, Happiness—we hope! In having to do and in doing; in helping others to do; in following a plan where the rules of

ing. In 1902, he became assistant testing engineer, and from 1903 to 1921, testing engineer of the Anaconda Copper Mining Company, engaged in investigating various problems in ore dressing, metallurgy, construction and mechanical engineering. Since then he has been consulting metallurgical engineer in private practice, specializing in ore sampling, concentration, smelting; leaching and fuel problems.

He prepared a chapter on Metallurgy for Thorp's "Outlines of Industrial Chemistry"; he wrote "Experiments to Determine the Refractoriness of Fire Clays" (with H. O. Hofman) and "Economy and Efficiency in Reverberatory Smelting," both published in the Transactions of the American Institute of Mining and Metallurgical Engineers; and three technical descriptions of the "Anaconda Reduction Works." He has been a member of the American Institute of Mining and Metallurgical Engineers for twenty-five years, and on the board of directors of the Montana Section for three years; trustee, Anaconda Public Library. His recreation is walking.

DENNETT, J. VAUGHAN (1889-91) IV

Retired. On directorate of Aberthaw Construction Company.
Born, September 26, 1867, Saco, Maine.
Married, September 16, 1895, Ellen Bowers. Children, Elliot, Dorothy, (two deceased).
Home, Gates Street, R. D. No. 2, Framingham, Massachusetts.

DENNETT writes: "Leaving Tech broken by 'La Grippe,' I returned to my former calling as a mariner, which was followed until health was regained and I was about ready to take command; when, knowing the futility of continuing in this doomed profession (that part under canvas and under the American flag), and unwilling to go into steam, it was time to quit.

"In the winter of '93-'94, I joined a few other Tech men to form the Aberthaw Construction Company, in which I was superintendent. After a few years of this I had a nervous breakdown which demanded two years of inactivity. Later I took up designing and making furniture, partly in connection with the Arts and Crafts movement in which I was much interested. I have held no public office. Contact with my classmates has been slight, as my closest friends were all scattered."

He is a member of the American Association for the Advancement of Science; Fellow of the American Geographical Society;

member Chi Phi fraternity, several historical societies and similar organizations. He writes that his amusements and hobbies are "sailing under canvas; collecting and reading books, both old and new; collecting old stuff, including junk." Before the interesting old house in which he lives in Framingham, grows one of the largest elms in the state.

DENSMORE, EDWARD DANA VI G

88 Broad Street, Boston, Massachusetts.

Of the firm of Densmore, LeClear and Robbins, Architects and Engineers.

Born, September 1, 1871, Somerville, Massachusetts.

Married, October 24, 1905, Annie L. Walley. Children, Edward D., Jr., Caroline, Anne, Elizabeth, William Phillips.

Home, 26 Downing Road, Brookline, Massachusetts.

AFTER graduating from the Institute, Densmore attended Harvard one year, receiving the degree of S.B. in 1894. He then took a shop course with the General Electric Company at Lynn and Schenectady. His first position was with a business agency in Boston. Densmore writes:

"Formed a partnership with Gifford LeClear, Harvard '95, in 1897, under the firm name of Densmore & LeClear, Engineers. Our practice has included the design of industrial buildings and power plants. About ten years ago Henry C. Robbins, Harvard '97, was taken into the firm which is now Densmore, LeClear & Robbins. We are practicing general architecture, making a specialty of business and industrial buildings. During the War we did miscellaneous engineering work for the Government, including work at the Portsmouth Navy Yard.

"The following list gives some typical examples of the work which we have done:—

Office Building, State Street and Atlantic Avenue, Boston.

Salada Tea Building, Berkeley and Stuart Streets, Boston.

Paine Furniture Building, Arlington Street, Boston.

Youth's Companion Building, Commonwealth Avenue, Boston.

Blackstone Cigar Building, Columbus Avenue, Boston.

Carter's Ink Company's Building, Cambridge.

Commonwealth of Massachusetts, Industrial School for Boys, Shirley, Mass., Administration and Miscellaneous Buildings.

Vermont State Library, Montpelier, Vermont.

New England Telephone & Telegraph Company, Exchange Buildings in Boston and other New England cities.

James A. Hearn & Son, Dry Goods, New York City, Service Building.

Park Square Office Building, St. James Avenue, Boston (603 ft. long, 11 stories high). Sixth largest office building in the world.

Harvard Medical School & Hospitals, Boston, Massachusetts Central Power Plant.

Harvard College, Cambridge, Massachusetts, Central Heating System."

He is a member of the American Association of Mechanical Engineers; American Society of Heating and Ventilating Engineers; Society of Colonial Wars; Mayflower Society; Engineers Club and Harvard Club of Boston; Harvard Club of New York; Brae Burn Country Club. His hobbies are golf, tennis and squash racquets.

*DERBY, CHARLES FRANCIS (1888-89)
Died October 29, 1892.

*DILLON, BENJAMIN HENRY (1889-90)
Died February 21, 1909.

BENJAMIN HENRY DILLON died at Fitchburg, Massachusetts, of pneumonia on February 21, 1909. He was born May 31, 1870, the son of D. M. Dillon of Fitchburg. He prepared for the Institute at Chauncy Hall School, Boston, and, with his brother, Frederick N., entered with the class of '93. During the freshman year the Dillon Brothers were the sergeants-at-arms of the class, whose duty it was to see that no sophomores gained access to the class meetings. At the end of the first year he left the Institute to engage in business with his father in the D. M. Dillon Steam Boiler Works at Fitchburg. In 1898 he entered the employ of the Hartford Steam Boiler Inspection and Insurance Company, which concern he ably represented in the South for a number of years, making a notable record in getting new business. With this company he occupied positions of inspector, district inspector in charge of the inspection force in North and South Carolina and special agent in charge of an extensive territory. In 1901, while located at Charlotte, North Carolina, he was honored by the governor of that state with the appointment of commissioner to represent North Carolina at the

South Carolina Interstate and West Indian Exposition at Charleston, commonly known at the time as the "Charleston Exhibition." While in the South he met with two accidents which incapacitated him for about two years. Dillon was a thirty-second degree Mason, a prominent Odd Fellow, a member of the American Society of Mechanical Engineers, as well as a member of social organizations throughout the South. Although a student with the class for only a year, his personality was such that he at once became one of our most prominent members. Ben Dillon's popularity was wholly deserved; he was a man whom it was a privilege to count as a friend, and his loss is mourned by the wide circle of classmates who knew and liked him.

DILLON, FREDERICK N. V G

Fitchburg, Massachusetts.

Treasurer, D. M. Dillon Steam Boiler Works.

Born, March 8, 1872, Fitchburg, Massachusetts.

Married, November 9, 1898, Margaret Downs Morse (deceased). Children, Frederick N., Jr., Dorothy, Margaret Morse.

Home, 16 Prospect Street, Fitchburg, Massachusetts.

"AFTER leaving Tech, I put in about ten years of hard work with the D. M. Dillon Steam Boiler Works, learning the boiler business in all its branches: first, the shop, and finally the office and selling end. During the war, we were busy on Government work, especially for the Watertown Arsenal, Watertown, Massachusetts; Camp Devens, Ayer, Massachusetts; Wright-Martin Aircraft Company, New Brunswick, New Jersey; Fore River Shipbuilding Company, Quincy, Massachusetts; and Naval Base, Newport, Rhode Island. We also did special work for various concerns, furnishing steel to the Government, and furnished some steel plate used on ships, armored motor boats, etc., and through a special permit from Washington, helped out the English Government in furnishing plates for some of the vessels being repaired in Canada.

"I have been interested in various Clubs, and at one time was President of the Park Club, Fitchburg, which has since been changed to the Fay Club. During the last two years, have taken much interest in the Oak Hill Country Club here, of which I have been President since its organization.

"The only public office I ever held was secretary of the Park Commission, Fitchburg, for many years, at the same time Mr. R. N.

Wallis, of '93, was on the Board. Have always been a staunch Republican and much interested in politics, but have never held office.

"Have lived in Fitchburg since graduation, but have traveled a great deal at odd moments, visiting most of the large countries in the world and having many interesting and unusual experiences. Was in China during the Revolution, when the practice of cutting off queues started, and was in Hongkong the day the new President, Sun Yat Sen, reached there. Was in the Balkan Countries just prior to the war and found them in a restless condition. Spent one winter in Russia and was the guest of Curtis Guild, the United States Ambassador. In 1912 and 1913, took a trip around the world, spending considerable time in India.

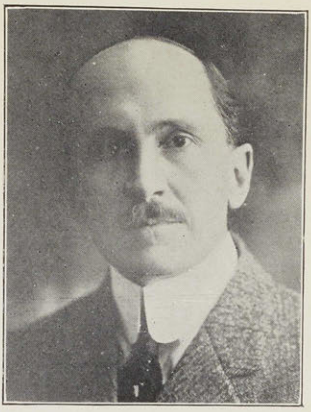
"Have visited Africa a number of times, making a special study of Egyptian ruins. Went to Egypt with Parker Bremer of '93, once, but he was so interested in the sailing of the ship, I did not see much of him, as he spent most of his time with the captain. However, he always showed up at meals.

"In regard to the benefits derived from Tech training, would say, the acquaintances which I made at the Institute have been one of my best assets. Since leaving there, I have kept in touch with many of my former classmates, attending reunions, etc., and their acquaintance has helped me wonderfully in business.

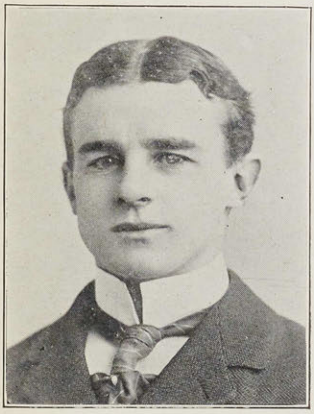
"Have enjoyed playing golf with a lot of the '93 boys, including 'Herbie' Dawes, 'Jimmy' Read, Farwell Bemis, 'Billy' Crosby, and Harry Latham. Some of them play even worse than I do, although one of these men has improved vastly during the last year. While playing at Tedesco with Herbert Dawes some years ago, I made one of the holes in one. Ask him about it.

"Have seen a great deal of Billy Page since he graduated, but since his little girl was born about a year ago, he is a changed man and I do not see him quite so often. He is about as fine a father as you will find in a day's travel. He still plays the old tunes on the ocarina and makes a good 'home brew'.

"The concern with which I am associated, the D. M. Dillon Steam Boiler Works, have subscribed for "Tech. Service," and I have found it very helpful to be able to confer with the heads of departments at Tech at any time, on matters pertaining to our business. (Can heartily recommend this 'Service' to any Institute man in the manufacturing business.) The Research Department has certainly done good work for us.



Herbert N. Dawes



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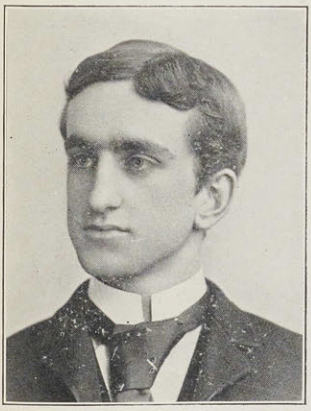
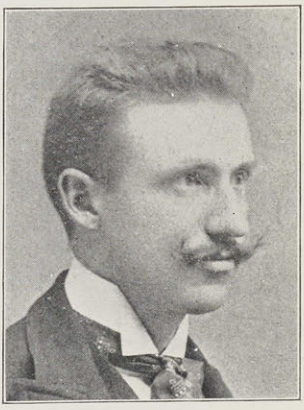
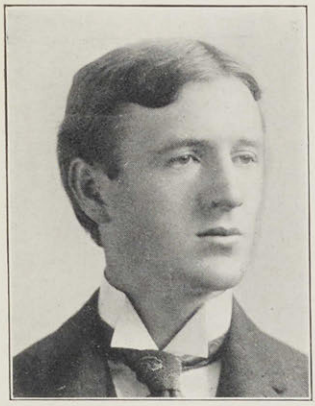


Charles D. Demond



J. Vaughan Dennett

Edward D. Densmore



Fred N. Dillon

Peter F. Dolan

"I wrote Fred Fay he ought to ask in the questionnaire how we stood on the 'Volstead Act', but for some reason he did not do so. I wonder why. Have heard it rumored that some of the '93 men are bootleggers, and, while I have my suspicions of one within ten miles of my home town, am not sure. Perhaps I can report further at the thirtieth reunion.

"In regard to the accomplishments of some of the men, would say, one of the pleasantest experiences I have had since we graduated was watching a member of my old Section (D) in the freshman class develop into one of the most popular and best business men in Boston. I refer to our President, Francis Wright Fabyan. He is also president of the Algonquin Club, of which I happen to be a member. Presume he is too modest to tell about his success, which is certainly well deserved. If you do not believe it, ask any member of the Algonquin Club."

Dillon says his chief amusements are travelling and golf; and his hobby, "trying out home brews." He has given several talks on his travels. He is a member of the American Society of Mechanical Engineers, National Association Cotton Manufacturers; Algonquin Club and Exchange Club, Boston; Country Club, Brookline; Worcester Country Club; Oak Hill Country Club and Fay Club, Fitchburg.

DIXON, LAURENCE BELMONT VI G

Ranching.

Born, August 16, 1870 at Chicago, Illinois.

Married, July 26, 1909, Mrs. Eda Lord Young. Children, Robert Lord and Richard Belmont.

Home, Victoria Avenue and Madison Street, Riverside, California.

FROM 1894, Dixon was continuously with the Western Electric Company at Chicago until he took up ranching in California some years ago.

DODGE, SAMUEL DOUGLASS I G

149 Broadway, New York City.

Treasurer, Richmond Screw Anchor Company.

Born, November 29, 1870, Grinnell, Iowa.

Married, June 14, 1913, Margaret Stone. Children, David, Eric Douglass.

Home, Suffern, New York.

AFTER a short teaching experience at the Institute and some work on the surveys for the Water Board of Winchester, Massachusetts, Dodge spent ten years with the distribution department of the Metropolitan Water Board of Massachusetts, on location surveys and construction of pipe lines, reservoirs, masonry water towers, sub-aqueous tunnel, etc. For the next ten years, he was in charge of location and construction of a section of the Catskill Aqueduct, and, later, on statistical and literary work on a history of the work of the Board of Water Supply of New York City. During the war, he was supervising engineer and production engineer, Ordnance Department, at Nitro, West Virginia, supervising water supply system; and connected with the New York District in production of picric acid and settlement of claims. He is now treasurer, Richmond Screw Anchor Company, New York. He is a member, American Society Civil Engineers; Technology Club of New York; Houvenkopf Country Club; Rockland County Society.

DOE, HAVEN (1889-93) VI
Somersworth, New Hampshire.
Railroad Agent.

DOLAN, PETER FRANCIS VI G
60 Bristol Street, Boston, Massachusetts.
Chief Inspector, Wire Division, Boston Fire Department.
Born, June 10, 1871, East Boston.
Married, April 29, 1900, Mary E. Wilson (deceased). Children, Agnes, Edward, Thomas, Florence, Mary (deceased), Alice, Anna, Evelyn, Joseph, Francis.
Home, 99 Orient Avenue, East Boston, Massachusetts.

EXCEPT for two years, 1909-11, when he was in business for himself as an electrical contractor and engineer, Dolan has been employed by the City of Boston since 1894; first, as assistant in engineering department; 1894-1909, in the wire department, as electrical engineer, electrical inspector, chief inspector; 1911 to date, chief inspector of the wire division, Boston Fire Department. (We think his hobby must be children. He holds the class record for size of family. — Ed.)

DORMAN, THEODORE TAYLOR; LL.M., M.P.L. X G
Executor and Trustee; President, Overlook Realty Company.
Born, September 11, 1871, South Hadley, Massachusetts.

Married, July 14, 1904, Frances Cole Hayes. Children, Dorothea, Charles Cole, Frances Hayes.
Home, 290 Upper Mountain Avenue, Upper Montclair, New Jersey.

FOR one year after graduation, Dorman was an insurance clerk with Hall and Henshaw, New York City. From August 1894 to September 1899, he served as assistant examiner in the United States Patent Office, Washington, D. C. While holding this position he took the course in general and patent law at the Law School of Columbian University, receiving the degrees of LL.M. and M.P.L., and was admitted to the Bar of the District of Columbia.

During the month of December, 1895, he was in charge of the patent office exhibit at the Cotton States Exposition at Atlanta, Georgia. September 1899 to June 1902, law clerk with Wetmore and Jenner, New York City; during this time was admitted to the Bar of the Supreme Court of the State of New York. June 1902 to January 1909, with Amory, Browne and Company, Commission Merchants of New York City; in 1905 and 1906, was a member of the Merchants' Association Tariff Committee for the revision of the Philippines tariff. July 1909 to February 1913, treasurer of Indian Head Plantations, Inc., growing shade wrapper tobacco at Granby, Connecticut. February 1913, to date, executor and trustee, estate of Franklin W. Dorman, Upper Montclair, New Jersey. He is a member of the Commonwealth Club of Montclair. He is much interested in the Boy Scouts.

DOUGHTY, STEWART BROWN (1889-92) IX

DRAPER, ALFRED E. (1889-90)
Canton, Massachusetts.
With Draper Brothers Company.

DRAPER, CHARLES WARDWELL (1890-91) IV

DUFORT, JOSEPH CAJETAN (1890-93) IV
195 Ste. Catherine Street, East, Montreal, Canada.
Architect.
Born, September 6, 1869, Montreal, Canada.
Married, May 29, 1899, Julie Braun, from Alsace Lorraine. Children, Eglantine, Leon, Victoire.
Home, 555 St. Antoine Street, Montreal, Canada.

wood, of brass, and of iron, we slaved so hard to learn thirty years ago, and more, have helped us to properly interpret the Golden Rule.

What of "Our Little Journey" so far as we have gone?

Well! It was a bit rocky, at the start; a bit of fog to obscure the way—our inexperience.

Yes! We stumbled at times. Who wouldn't? We had many adjustments to make.

Things began to get better, after a while. The sign posts stood out and showed the way more clearly.

The time came when it seemed as if we had journeyed over the old road before.

Later on, it became so that we could begin to point the way and help a younger stranger.

Now—having come to the place in our "journey," where we are the elders, we are being sought for our counsel. Just to think! sought for our advice as to the best way and the best equipment for the journey. We, the youngsters of the day before yesterday—thirty years ago.

Soon we can begin to see to the end of the road. To the end of the road! And why not?

We have lived, we must let live; we'll grow too old; after a while, the younger must come on and take our places. And if we have lived and have found happiness in our endeavors—not as the slothful toad, but as the constructive bee—then will we lie down to sleep with that measure of comfort which The Almighty accords to those who try to follow, in their humble way, His footsteps in the paths of creation.

J. Ramsey Speer.

JOSEPH C. DUFORT has an extensive practice as architect at 195 Ste. Catherine Street, East, Montreal, Canada. After leaving Tech in '93 Dufort was employed in architects' offices until February, 1895, when he opened an office for himself in Montreal. He has built a number of public buildings, as well as commercial and mercantile buildings, residences, and a theatre, and one of the largest office buildings in Montreal. Of his career, Dufort writes:

"In 1889, I left Montreal to enter Tech at the end of September, to take Course IV. The first professor that I met was Prof. Chandler, Chief of Architectural Department, Prof. Homer, for Shades and Shadows and Orders, Prof. Ross Turner, Water Color, Prof. Gregg in Pen and Ink, Prof. Lawrence as assistant and Prof. Eugene Letang from France, Professor in Design. When I met Prof. Letang for the first time, he was very much surprised and delighted to hear me speaking his own language, being the only one that could speak French, and he exclaimed: 'Enfin je vais pouvoir parler Français', so we had a bit of talk very often in French. One month after entering Tech, I was getting popular in teaching my classmates, also my 'Co-ed' friends in French, this obliging me to be early in the morning so as to help them in their French studies. I had to spell French words with letters in English, they did not even know their letters in French; it was a poor method to pronounce French words in English spelling.

"My name was a little difficult for them to pronounce, so they gave me a nickname of 'Ike Duffy' on account of the first syllable of my name and also my Irish resemblance. I had a friend named Emil Lorch, who wanted to share my room with me, because he was anxious to learn French, so we roomed together for two years at 46 Union Park; after that time we separated and my dear friend could speak the French language fluently when later he went to Paris. After each year of studies in Tech, I worked, as a draftsman for the architectural firms Shepley, Rutan & Coolidge, in the Ames Building, Winslow & Witherell, and Fuller & Delano in Worcester, Massachusetts.

"In 1893, I came back to Montreal and worked for one year and a half in Maxwell's office, and in March, 1895, I passed my examination, to be a member of Province of Quebec Association of Architects, and I opened an office in my home. On the 9th of March, I was ordered by Senator Thibaudeau to draw plans for his $20,000 country residence. I made a success and this house brought me more engagements. In 1913, I attended the 20th anni-

versary of Class '93 at Saybrook Point, in Connecticut, and I had the best time in my life."

Before coming to the Institute he was for six years a student at Ste. Mary College, in Montreal. Dufort is a member of "L'Alliance Nationale" Society, Associated Architects, Province of Quebec; Ontario Architects Association, member formerly Canadian Snow Shoe Club, Park Slide Toboggan Club, Victoria Skating Club.

*DUNCAN, ROBERT JONES (1889-92) VI
Died October 19, 1896.

HE was born in Washington, D. C., in 1871, and prepared for the Institute at Phillips Exeter Academy. He was obliged to leave the Institute before the end of his course because of ill health. During the last few years of his life, which were spent in Englewood, N. J., he devoted himself to the study of music, and showed a remarkable ability, particularly in harmony and the science of music. He composed several pieces, among which were various hymns and chants. In order to become more fully acquainted with the piano, he spent several months in the employ of the Steinway Piano Company. During the last year of his life he was connected with the New York & New Jersey Telephone Company and with the Western Electric Company.

EATON, ELLA E.
(See Gill, Mrs. A. C.)

EDWARDS, ARIEL BALLOU (1889-94) IX
St. James Hotel, Woonsocket, Rhode Island.
Hotel and Office Buildings — Manager.
Born, January 27, 1871, Woonsocket, Rhode Island.
Unmarried.

Edwards writes:

"IN the summer of '93, I worked as foreman in the construction of the St. James Hotel at Woonsocket, which was then completed and leased. I spent the next seven years learning the cotton manufacturing business, working through every department. In 1900 I took on the management of the St. James Hotel and some realty interests. My Tech training has been of great value to me in the upkeep and building of my properties, as I have maintained a small crew and with them worked out my plans and done all the smaller

construction. I went into the cotton industry with the idea of eventually becoming a manufacturer, but after putting in seven hard years at it, decided that, as my father's health was gradually failing, the best interests of the family would be served by developing several of the central locations to which we held title, and subsequent events have well proved the wisdom of the course taken."

During the war, Edwards acted as Food Administrator for Rhode Island. His recreations are golf, hunting, fishing and motoring. He is a member of the M.I.T. Alumni Association; Society of Mayflower Descendants; Woonsocket Chamber of Commerce; Metacomet, Cumberland, and Winnesucket Golf Clubs; Ironstone Country Club, Brunswick Foxhound Club, New England Foxhunters' Club and Horsemen of Rhode Island, Inc.

*ELLIS, JOHN VI G '94

Died, May 1920.

FOR some years Ellis was located at Lonsdale, Rhode Island, as manager of the Lonsdale Company, electric light and power plant. He afterwards went into private practice as consulting engineer at Fall River. It was in that city in May, 1920, that he was run over by a truck and died of his injuries.

ELLMS, JOSEPH WILTON (1889-92) V

The Frazier, Ellms, Sheal Company, The B. F. Keith Building, Cleveland, Ohio.

Vice-President, The Frazier, Ellms, Sheal Company, Consulting Engineers; also Engineer of Water Purification for the Division of Water, Department of Public Utilities of Cleveland.

Born, October 4, 1867, Ayer, Massachusetts.

Married, February 23, 1897, Geneva E. Conradt. Children, Esther Geneva, Elizabeth Conradt, Helen Taylor, Robert Wilton.

Home, 1263 Cook Avenue, Lakewood (Cuyahoga County), Ohio.

"ENGAGED in chemical work immediately on leaving the Institute, my first position being with the Massachusetts State Board of Health as assistant chemist in the Boston laboratory. After holding this place for three years, I went to Louisville, Kentucky, and became assistant chemist to the Louisville Water Company in con-

nection with this company's extensive investigation of water purification processes. Returned to the Massachusetts State Board of Health laboratories about a year later and remained for six months. I then went to Brooklyn, New York, and became chemist for the City Health Department, undertaking an investigation of the character of the water supplies on which the City of Brooklyn then depended. Immediately on finishing this work in December, 1897, I was appointed as a chemist by the Water Commissioners of Cincinnati in connection with their experimental study of water filtration processes, which work was completed early in 1899.

"From 1899 until 1907, I was in charge of the engineering testing laboratory of the Water Commissioners of Cincinnati. During this time, I carried on an experimental investigation of the hydraulics of rapid sand filter washing, and developed a method now known as the 'high velocity' method of washing filters, which has since become quite generally adopted in all of the large filter plants of the country. During this period I also acted as a consulting specialist on filter plant problems connected with the design of the Cincinnati Filtration Plant. In 1907 I was appointed superintendent of this latter plant, and continued in this capacity until 1918.

"From 1912 to date, I have also engaged for a portion of my time in consulting engineering work on general water works design, construction and operation, but giving especial attention to water purification problems. Have been employed chiefly by the larger cities such as Birmingham, Alabama; Minneapolis and St. Paul, Minnesota; Toledo, Dayton, and Cleveland, Ohio; Milwaukee, Wisconsin; and Bay City, Michigan.

"In 1920, I completed a year's experimental investigation of processes for the purification of Lake Michigan water for the City of Milwaukee. I am at present engaged in carrying through a large project for a city in Michigan, which involves the design and supervision of construction of a new water works system, including a new intake, force mains, pumping station and filter plant requiring an expenditure of two million dollars. In connection with my work for the City of Cleveland, it has covered a number of different phases of water works sanitary engineering problems, such as the supervision of filter plant operation, a sanitary survey of the water of Lake Erie opposite Cleveland in connection with the location of new intakes, relation of obnoxious tastes in the City's water supply to certain of the wastes of by-product coke oven plants,

the development of the hydraulic jump as a method of mixing coagulating chemicals with water in water purification work, studies of the rate of solution of sulphate of alumina with reference to the design of solution tanks for filter plants and various other matters relating to improvements in the design or operation of filter plants. Have also been actively consulted during the design of a new large filtration plant for the City of Cleveland in connection with all phases of its development. Have acted also as consulting engineer to the water department of the City of Cleveland in connection with all of the sanitary phases of the department's development of a program for the extension of the City's water supply system to care for its needs for the next 30 or 40 years, which will cost in the neighborhood of twenty-five or thirty million dollars.

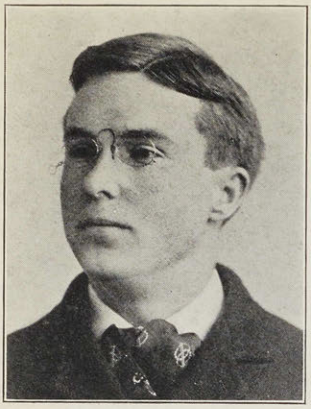
"I have had practically no contact with other '93 Tech men during my professional work, but whenever I have been in touch with Institute men, I have usually found them reliable, proficient and reflecting in their work the thorough training they had received.

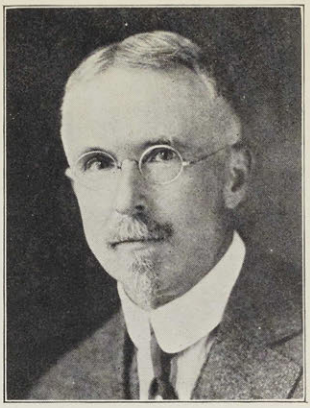
"I have personally benefited by my Tech training, not so much from the facts that I learned, as from the way I was taught to investigate technical problems, and from the personal influence of certain of the professors and instructors of the faculty with whom I came in contact."

Ellms is a member of the American Society of Civil Engineers, American Chemical Society, American Public Health Association, American Water Works Association; Cleveland Chamber of Commerce, M. I. T. Club of Northern Ohio and the Masons. He is the author of a book entitled "Water Purification" and has published twenty-five or more technical papers and reports, and has in preparation several important reports and papers relating to chemical and engineering problems.

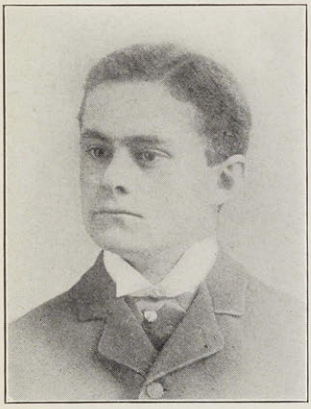
EMERY, JAMES ALBERT I G

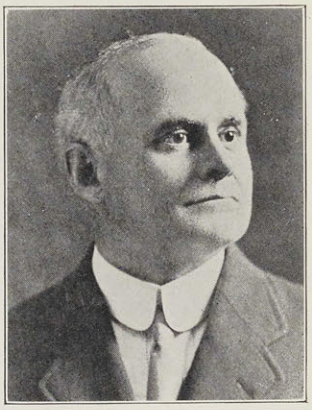
115 Broadway, New York City.
Consulting Engineer, Ford, Bacon & Davis, Inc.
Born, August 20, 1872, Biddeford, Maine.
Married, December 26, 1895, Jessie Jordan (deceased 1896); November 30, 1903, Annie Comer. Children, Grace Thornton, Katherine Drewry, Anne (deceased), James Albert, Jr.
Home, 305 Park Street, Montclair, New Jersey.





Theodore T. Dorman

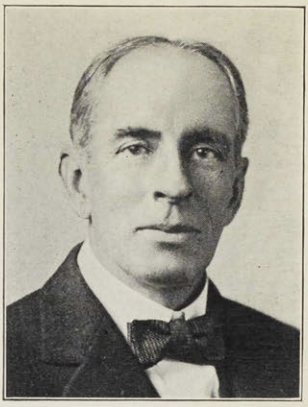




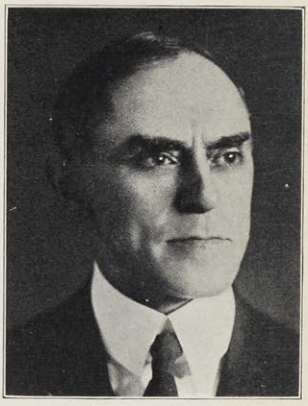
Joseph C. Dufort

Ariel B. Edwards

Joseph W. Ellms



William E. Evans



James A. Emery

Francis W. Fabyan

THE first year following graduation Emery spent as an assistant in the Civil Engineering Department at the Institute. Then for two years he was draftsman and engineer with William Wharton, Jr., and Company of Philadelphia on street railway special track work. 1897 to 1899, he was in independent engineering and construction superintendence of the Worcester and Blackstone Valley Street Railway and the Webster and Dudley Street Railway. In 1899 he became associated with Ford, Bacon & Davis, New York, in charge of design and construction of the Atlanta Rapid Transit Company and Georgia Electric Light Company at Atlanta, Georgia, and of the Birmingham Railway, Light and Power Company at Birmingham, Alabama. From 1903 to 1907, he was vice-president and general manager of this latter company, which furnished all street railway, electric light, gas and district steam heat service in the Birmingham district. During 1908, he was president of the Emery Steel Company at Gadsden, Alabama, manufacturing steel and iron bars. From 1908 to 1922, he was engineer in employ of Ford, Bacon & Davis, on consultation, valuation, examination and report service, his principal work in this period being for the Toledo Railway and Light Company of Toledo, Ohio; Consolidated Gas, Electric Light and Power Company of Baltimore; Pennsylvania State Railroad Commission, report on Philadelphia street railway service; City of Philadelphia, report on rapid transit service; Rhode Island Company, valuation and testimony in rate cases; Pittsburgh Railways, member of valuation board; Chalmers Motor Company; Warehouse Construction Company, Jersey City, New Jersey. In 1923, Emery became vice-president of Ford, Bacon & Davis, Inc.

He has written numerous articles on electric railway subjects for the *Electric Railway Journal* and a paper on Statistical Units before the Engineering and Accounting Divisions of the American Electric Railway Association.

He is a member of the American Society of Civil Engineers and American Electric Railway Association; Montclair Athletic Club, Commonwealth Club of Montclair, Technology Club of New York and Masonic orders. Gardening and reading history are his hobbies.

EMERY, SIDNEY SHEPPARD (1892-93)

Louviers, Colorado.

Chemist, E. I. duPont de Nemours Powder Company.

Married, December 16, 1896, Anna Payne Butler. Child, Loring Lord.

Home, Louviers, Colorado.

THE first few years after leaving Tech were spent by Emery in various lines of manufacturing chemistry. About twenty-five years ago he went into the high explosive business and is still in that line. During the war, as chief chemist at the Louviers works of the E. I. duPont de Nemours Powder Company he had charge of the manufacture of high explosives.

In 1909, he wrote: "Have done considerable experimental work, some of which was attended with gratifying results. Prominent among this was a very successful treatment for separating nitroglycerine from the spent acid. This new process is now generally used both in this country and abroad. My hobbies are music and ancient literature; the latter I know only through translations. Have travelled over the greater part of this country on business trips, and although located at present in the West, I hope sometime to return permanently to the East. (I am afraid I am incorrigible in my predilection for Boston.)"

ESTY, WILLIAM; M.A. VI G

Lehigh University, South Bethlehem, Pennsylvania.

Professor of Electrical Engineering.

Married, June 14, 1894, Julia Louise Coy. Children, William Cole, Jr., Lucien Coy, John Cushing.

HE was a student at Amherst from 1885 to 1889, graduating in 1889 with the degree of B.A. and in 1893 receiving the degree of M.A. After graduating from M.I.T. he had a year's practical engineering experience with the Thomson-Houston Electric Company at Lynn and then accepted the position of instructor of electrical engineering at the University of Illinois. Two years later he was made assistant professor and three years after that associate professor. In 1901 he went to Lehigh University as assistant professor of electrical engineering at that university. During these years of teaching he has done more or less outside professional work, including expert testing, electrical designing and work as consulting engineer. He has been consulting electrical engineer for the Borough of Bethlehem, Pennsylvania. He has published a

number of articles, including "Experimental Data on the Design of Electromagnets"; "Data from Tests on Electric Car Heaters"; "Tests on the Effect of Temperature on Insulation Materials," and in June, 1902, he read a paper before the American Institute of Electrical Engineers on "Electrical Engineering Courses at College and the Education of the Electrical Engineer." In collaboration with W. S. Franklin he has published "Elements of Electrical Engineering" in two volumes (The Macmillan Company), a text book which is used in over one hundred colleges and technical schools, including the Institute. He is joint author, also, of a "Dynamo Laboratory Manual," Vol. I, Direct Current Machinery, which is extensively used in technical schools.

He is a member of the American Institute of Electrical Engineers, the Society for the Promotion of Engineering Education, the American Association for the Advancement of Science, the Psi Upsilon and Tau Beta Pi fraternities, and the Northampton Home and Uname clubs.

During the war, Esty was associate member, Legal Advisory Board, District No. 4, Northampton County, Pennsylvania; and in charge of electrical trades courses for enlisted men at Camp Coppee, Lehigh University.

EVANS, WILBUR FORBES; M.E. (1889-91) II

301 Congress Street, Boston, Massachusetts.
President and Treasurer, Electric Maintenance Company.
Born, December 2, 1869, Springfield, Massachusetts.
Married, September 9, 1896.
Home, 658 Chestnut Street, Waban, Massachusetts.

EVANS studied at Cornell after leaving the Institute, graduating with the degree of M.E. in 1893. He writes to the Secretary:

"My dear Fay:

"I have your letter of the 25th with information blank for your Class Book of M.I.T. '93 and have partially filled this out and am mailing it to you; I trust it will give you what you desire.

"Your interest in this matter surely should be rewarded and it is in respect to your efforts, and my personal regard for you and the members of the class that I have done this.

"It is, of course, with regret that the Institute did not consider me worthy of continuing further in the class. As you know, I moved to Cornell and continued with my class there, receiving my degree and classifying thereby as a Cornell graduate but, how-

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ever, I still have a warm place in my heart for the old Class of '93 at M.I.T., with whom my college career began, and it is with considerable pleasure that I find you reciprocate this feeling.

"Founded the Electric Maintenance Company, February 16, 1898 — incorporated same in 1904, and am still the principal owner; president and treasurer, after a period of twenty-six years. The best thing I can say is that what little I have done in my business has been obtained honestly and without intrigue and also without any family influence.

"With best regards to the boys of the Class of '93 from your old friend

W. F. EVANS,
'Cornell '93' "

He is a member of the Phi Gamma Delta fraternity.

EVANS, WILLIAM EUGENE (1889-93) IV

Framingham, Massachusetts.
Orchardist and Truck Farming.
Born, April 4, 1869, Jamaica Plain, Massachusetts.
Married, September 23, 1903, Agnes W. Emerson. Children, Eugene Emerson, Louise, Marion, William Seaver, Lawrence Weld.
Home, Framingham, Massachusetts.

AFTER leaving the Institute Evans was draftsman for Arthur F. Gray, architect, of Boston, for several years. Then for one year engaged in metallurgical business in Portland, Maine, manufacturing a zinc oxide and lead sulphate used as a base for paint. In 1899, he went to Sydney, Cape Breton, with the United Coke and Gas Company, contractors, building coke ovens for the Dominion Iron and Steel Company. He was employed by Dean and Main for a year or two and when they separated, he was with Charles T. Main as mill engineer and architect for several years until he gave up his profession on account of sickness, bought a farm in Framingham to see what an outdoor life would do for him. He says that from a standpoint of health it has been a great success. He says further —

"Although my present occupation is so entirely different from what I expected and intended to do in 1893, I feel sure that I will never regret having taken some course at the M.I.T.

"It has taught me to appreciate and love to see good honest work and to be glad for those that have succeeded in accomplish-

ing what they are trying to do. Outside of the detail work taught at Tech, it is very interesting to note the difference between the college bred man and one who has not had that advantage. As a rule the former has an alert mind well stocked with ways and means for conquering the difficulties which are constantly arising in his daily life and business.

"My farm and orchard work takes in a variety of engineering subjects, and I believe that is one of the reasons why I enjoy farming."

He is a member of Eliot Lodge, A.F. & A.M., and Mount Vernon Royal Arch Chapter. He enjoys hunting, fishing, automobiling and outdoor life in general.

FABYAN, FRANCIS WRIGHT (1890-93) IX

72 Franklin Street, Boston, Massachusetts.
Drygoods Commission Business, Bliss, Fabyan & Company.
Born, March 16, 1871, Brookline, Massachusetts.
Married, June 1, 1893, Edith Westcott. Children, Eleanor, George, Everett, Edith, F. W., Jr.
Home, 146 Commonwealth Avenue, Boston, Massachusetts.

Fabyan writes the Secretary:

"As you know, I was born in Brookline, and attended the Brookline public schools before going to the Institute.

"I have always considered myself quite clever. The first thing I did of importance was to select a rich and influential father. Attending the public schools made me a fairly good mixer.

"Upon leaving the Institute of Technology I entered the employment of my father's firm — Bliss, Fabyan & Company, drygoods commission merchants, and being the son of my father no one ever dared ask me to do anything, so that I have been forced to ask the question 'What can I be doing now?' to myself, and I have found this attitude most helpful.

"At present I am one of the partners of Bliss, Fabyan & Company; president of the M.I.T. Class of '93; member of the Corporation of the Institute of Technology; president, Algonquin Club, Union Water Power Company, Franklin Company; treasurer, Otis Company, Columbian Manufacturing Company, Cordis Mills; director, Edwards Manufacturing Company, Bates Manufacturing Company, Metropolitan Storage Warehouse, New England Trust Company; and trustee of the Free Hospital for Women.

"As time goes on I don't seem to have quite as much opportunity of asking myself what I can be doing, as formerly."

Although Fabyan doesn't say so, it is evident that his hobby is M.I.T., from the interest he takes in Technology affairs generally. Just one instance is given in a letter from Bemis, who is serving with Fabyan as a member of the Tech Corporation. Bemis says:

"Do you know of the recent work of our classmate, F. W. Fabyan, who during the past year or two has been arousing among the students a very distinct interest in logic and linguistic expression through the meetings for debates and 'public speaking' which he has arranged? It is quite apparent that the lack of training and accomplishment in this general field of expression on the part of Technology men has been chiefly due to the lack of the right atmosphere at the Institute. If proficiency in logic and the use of English were made a requirement in every subject at the Institute in which written or spoken tests are required, it would provide the atmosphere and hence the incentive and to my mind bring most beneficial results. Furthermore, if in such courses practically all teachers were thus required to be teachers of English, it would have a healthy reaction upon the teachers as well as upon the taught and facilitate the acquirement of scientific and technical knowledge as well as proficiency in the use of English."

Perhaps Fabyan's chief distinction lies in the fact that he was the first man to be married after the class graduated — two days after, in fact — and that he has five children (including the class baby) and seven grandchildren. His hobby is fishing.

FAIRFIELD, EDMUND JOHN (1889-91) II

No address.

IN 1909, Fairfield was in the casualty insurance business at 307 Fourth Avenue, Pittsburgh, Pennsylvania. He married Lena H. Clark in 1896; they had one child, Edward J., Jr. He wrote in 1909:

"Travelled for two years or so looking about, then entered in agency business and made some money. Returning to Hartford, Connecticut, went into manufacturing business, but was offered better opportunities in the casualty insurance line, so took it up, and have been at it ever since in Connecticut, Ohio, and finally Pittsburgh."

*FALES, HAROLD EVERETT (1889-90)
Deceased.

IN 1909, he was of the law firm, Mellen and Fales, with offices at 18 Tremont Street, Boston, Massachusetts.

FARWELL, ARTHUR VI G
Pasadena, California.
Composer.
Born, April 23, 1872, St. Paul, Minnesota.
Married, June 5, 1917, Gertrude Everts Brice.
Home, 1703 North Fair Oakes Avenue, Pasadena, California.

AFTER graduating from the Institute as an electrical engineer, Arthur Farwell studied music composition from 1893 to 1899, under Homer Norris and T. P. Currier in Boston, Engelbert Humperdinck in Germany and Alexandre Guilmant in Paris. It was during his years of study in Boston that he brought out, under the guidance of Edward MacDowell, his first compositions, "Tone Pictures after Pastels and Prose." On returning from abroad, he became lecturer on musical history at Cornell University, remaining there until 1901.

The American Institute of Archeology sent Farwell west in 1903, to study and prepare reports of the folk songs of the American Indian and other folk songs of Spanish California.

It was after this that he established his Wa-Wan Press at Newton Centre, where he pursued his propaganda in behalf of American music and American composers which has borne such rich, though not fully recognized, results throughout the country; compositions of Henry F. Gilbert, Henry Hadley and others then little known were published.

He has been on the staff of *Musical America* since 1909; was supervisor of municipal concerts in New York, 1910 to 1913; director, Music School Settlement, New York, 1915 to 1918; acting head, department of music, University of California, 1918 to 1919. In 1921, he was awarded the first "Composer's Fellowship" just then established by the Pasadena Music and Art Association. The sole requirement is that the holder of the fellowship shall devote at least half his time to musical composition.

A presentation of one of the Bohemian Club grove plays, near San Francisco, aroused Farwell's interest in the pageant movement, which resulted in his joining in the formation of the American Pageant Association with a determination to develop the musical

aspect of the pageant as fully as possible. His first work along this line was to compose the music for Louis N. Parker's "Joseph and His Brethren."

The music for Percy MacKaye's "Caliban" produced in New York for the Shakespeare Tercentenary was written by him and in 1917 he again collaborated with Mr. MacKaye, composing the music for "The Evergreen Tree," which is regarded as one of the best examples of community music drama. This was produced in Pasadena. He is considered one of the foremost American composers and music critics.

His compositions are: American Indian Melodies, 1901, and "Dawn" and "The Domain of Hurakan" (compositions based on Indian folklore and music), 1901; Folk Songs of the South and West; Navajo War Dance; Symbolistic Studies, 1904-09; incidental music for "Joseph and His Brethren," "The Garden of Paradise" and "The Gods of the Mountain"; music for pageant of Meredith, New Hampshire, and pageant of Darien, Connecticut, 1913; music for Community Masque, "Caliban," 1916, and "The Evergreen Tree," 1917; music for the Pilgrimage Play, Hollywood, California, 1921; symphonic hymn on "March, March," 1921.

FAY, FREDERIC HAROLD I G '93 S.M. '94

Consulting Engineer, of the Firm of Fay, Spofford and Thorndike.

Business address, 200 Devonshire Street, Boston, Massachusetts.

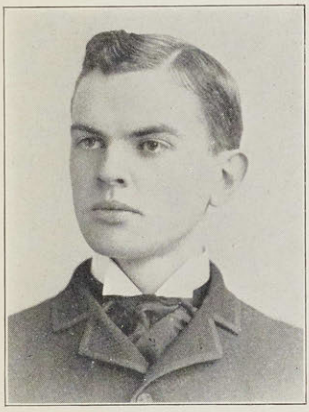
Born, July 5, 1872, Marlborough, Massachusetts.

Married, April 21, 1897, Clara May Potter. Children, Allen Potter (deceased), Beatrice (Mrs. Frederick B. West), Mildred E., Dorothy C., Eleanor P. and Elizabeth.

Home address, 227 Savin Hill Avenue, Boston.

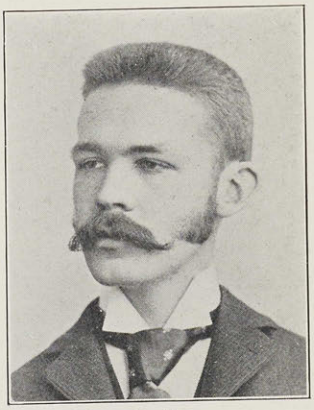
THE year following graduation, Fay returned to the Institute for a year of post-graduate study, specializing in bridge and structural engineering and receiving the degree of M.S. in 1894. After a period of service as draftsman at the Boston Bridge Works, he entered the city engineering department of Boston in 1895, where he was successively draftsman, assistant engineer in charge of bridge design and city bridge engineer. Later he became head of the Bridge and Ferry Division of Boston and Commissioner for Boston on the Boston and Cambridge Bridge Commission. He resigned from the service of the city in 1914 to establish, with Sturgis H.

Arthur G. Farwell

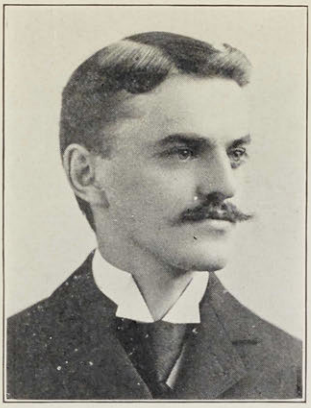


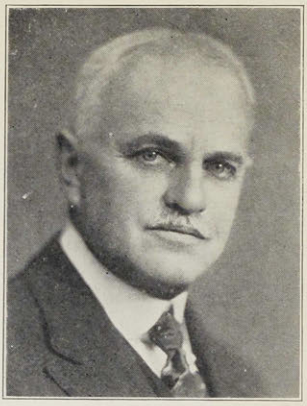
Frederic H. Fay

Edward J. Flynn

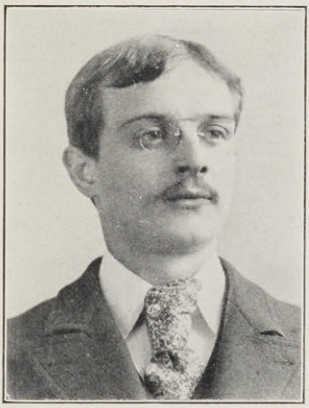


Fred B. Forbes

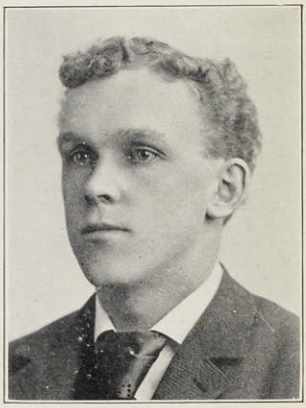




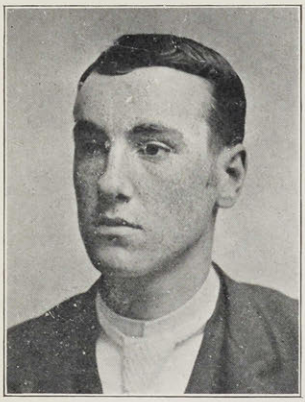
Arthur E. Fowle

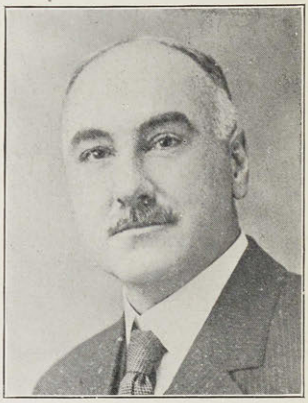


John H. Gardner



*Wallace K. Gaylord





Howard A. Gilson

Thorndike '95 and with Professor Charles M. Spofford '93, the head of the Department of Civil and Sanitary Engineering at the Massachusetts Institute of Technology, the engineering firm of Fay, Spofford and Thorndike. In July, 1922, another classmate, G. L. Mirick, was taken into the firm. Both individually and, since 1914, as a member of his firm, Fay has served as consulting engineer for railroads, state and provincial authorities, county and municipal officials and private clients in the United States, Canada and abroad. During the War, the firm served as Engineers to the War Department on the construction of the Boston Army Supply Base, doing the entire engineering work, including planning, designing and supervising, carrying it through to completion in sixteen months at a cost substantially less than the appropriation. Also, they served as engineering advisors to the American Red Cross, Council of National Defense and the United States Shipping Board.

Fay has long taken an active interest in civic affairs of his home city. For several years, as a member of the Boston City Planning Board, of which he is now chairman, he has given careful study to the varied and complex problems of municipal development of a seaboard city where land and water transportation, and co-ordination of the same by means of suitable waterfront terminals, are important factors in municipal development. At present this Planning Board is preparing a zoning ordinance for the regulation of the construction and use of buildings throughout the city, and it is also working out a comprehensive plan of street improvements and extensions to be carried out during the next ten years. In the Boston Chamber of Commerce, Fay has served as vice-president and director, as chairman of the Committee on Municipal and Metropolitan Affairs, and as a member of various other committees, including the Committee on Port War Facilities. By appointment of the Mayor of Boston he has served upon several municipal boards and committees, including the commission to regulate building construction during the war and, in 1919, the Mayor's Committee on the Development of Foreign and Domestic Commerce of Boston. Likewise, by appointment of the Governor of Massachusetts, he has served upon an advisory commission to draft legislation regulating building heights and has represented the Commonwealth at national waterways conventions.

In 1913, Fay was made president of the Alumni Association and later he served as a term member of the Institute Corporation.

He was compiler of "The Population and Finances of Boston,"

1901; has written many technical papers and delivered addresses on problems of municipal government and administration and professional subjects. He is a past-president of the Boston Society of Civil Engineers, an office which has also been filled by his partner, Professor Spofford; a past director of the American Society of Civil Engineers; a fellow of the American Academy of Arts and Sciences; a member of the American Association for the Advancement of Science; American Institute of Consulting Engineers, Engineering Institute of Canada, American Concrete Institute, International Association of Navigation Congresses, Society of Terminal Engineers, Massachusetts Highway Association, New England Water Works Association, Massachusetts Charitable Mechanic Association, and past vice-president of the Engineering Society of Western Massachusetts. He is treasurer of the Engineers Club of Boston; a member of the Boston City Club, Technology Club, Boston and New York; Wollaston Golf Club, Savin Hill Yacht Club, Unitarian Club of Boston, Laymen's League and a life member, American Unitarian Association.

His hobbies are motor boating, motoring, golf and the blazing and mapping of trails on Mt. Monadnock.

FENNER, BURT L.; M.A. (1890-91) IV

101 Park Avenue, New York City.
Architect, Member of the firm of McKim, Mead & White.
Born, September 5, 1869, Rochester, New York.
Married, December 9, 1896, Louise McKittrick. Child, Ward Wadsworth.
Home, "Stoneledge," Croton-on-Hudson, New York.

ON leaving the Institute in 1891, Fenner entered the office of McKim, Mead & White, with whom he has been associated ever since, becoming a member of the firm in 1906.

Among the recent buildings designed by his firm are the Municipal Building, Post Office Building, Bellevue Hospital, Columbia College buildings, Metropolitan Museum of Art, J. P. Morgan Library Building, Pennsylvania Railroad Station, Hotel Pennsylvania, all in New York.

Prior to his course at the Institute Fenner attended the University of Rochester, from which institution he received the honorary degree of Master of Arts in 1911. During the war he served as secretary to the United States Housing Corporation and the Bureau

of Industrial Housing and Transportation of the United States Department of Labor, at Washington.

He is Chairman of the Committee on Apprenticeship for the Metropolitan District of the New York Section of the National Congress of Building and Construction Industry.

He is a Fellow of the Brooklyn Institute of Arts and Sciences; member and past secretary of the American Institute of Architects; member, American Federation of Arts; University Club, Century Club and Psi Upsilon Club of New York; Sleepy Hollow Country Club, Cosmos Club of Washington; Chamber of Commerce, Merchants Association and many civic societies.

FITTS, REVEREND FREDERIC WHITNEY (1890-93) IV
1262 Tremont Street, Roxbury, Massachusetts.
Rector, St. John's Church.

REVEREND FREDERIC W. FITTS was recently elected to the executive committee of the Episcopal City Mission. He has been Rector of St. John's Church, Roxbury Crossing, Boston, for a good many years, and is very active in Parish and Diocesan work. He is a member of, and secretary to, the Standing Committee of the Diocese of Massachusetts, is chairman of the Department of Religious Education, and is Chaplain of St. Luke's Home for Convalescents.

FITZ, CHARLES FREDERIC (1890-93) II
1 Ashburton Place, Boston.
Civil Engineer.
Home, Watertown, Massachusetts.

HE was with the Metropolitan Park Commission until 1900; with the Massachusetts Highway Commission until 1901, and later with the Metropolitan Water and Sewerage Board, now a division of the Metropolitan District Commission of Massachusetts. He is a member of the Boston Society of Civil Engineers.

FLETCHER, MRS. LONDA STEBBINS (1889-90) V
(Stebbins, Londa Loleta)
Housekeeper and globe trotter, watching the tethered nations get loose.
Born, 1872, Alameda, California.
Married, 1905, Harris F. Fletcher (deceased).
Home, 56 Eucalyptus Road, Berkeley, California.

MISS STEBBINS studied at the University of California 1893-94; from 1894-1898 she took courses in science and hygiene at Stanford University, during the three latter years also teaching physical training at the University. From 1898 to 1902, she had private classes in physical training in San Francisco and Oakland; from 1903 to 1906, served as Chief Probation Officer to the San Francisco Juvenile Court (Superior Court). Miss Stebbins has done much work for suffrage. In 1905 Miss Stebbins married Mr. Harris F. Fletcher, who died in 1911.

Mrs. Fletcher's war work is well deserving of mention in *Technology War Record*. She writes of it:

"From June 1, 1918, till September, 1919, was in American Red Cross Service in France as Directeur des Réfugiés in the Department of Morbihan, Brittany, where the Red Cross looked after 22,000 French from the devastated areas. Was sent to Palestine and from there to Damascus, where the Red Cross loaned me to the British Army to supervise relief for 8,000 Turkish widows who were stranded in Damascus. These families were fed bread, lentils, rice, greens and olive oil, till they could be repatriated."

FLYNN, EDWARD JAMES; A.B., LL.B. (1889-90)

141 Milk Street, Boston, Massachusetts.
Lawyer.
Born, October 11, 1871, Somerville, Massachusetts.
Married, July 29, 1905, Hazel Bennett. Children, Eleanor, Edmund B., Ruth, Fletcher.
Home, 17 Baker Street, Lynn, Massachusetts.

Flynn writes:

"I practised law in Boston from 1898 to 1912 and in New York City from 1912 to 1916. At that time I returned to Boston, where I have been practising ever since. During the war I participated in the Liberty Loan and Red Cross Drives and was also a member of the Four Minute Men. I am sorry to say that I have met very few Tech men."

He attended Harvard College after leaving the Institute, receiving his A.B. degree in 1896 and LL.B. from the Harvard Law School in 1898. He is a member of the American Bar Association.

FORBES, FRED BETTINSON V G

541 State House, Boston, Massachusetts.

Principal Assistant Chemist, Massachusetts Department of Public Health.

Born, January 30, 1872, Cambridge, Massachusetts.

Married, October 20, 1902, Anna Maude Soule. Children, Albert Gardner and Robert.

Home, 16 Chester Place, West Somerville, Massachusetts.

FORBES has been connected with the Massachusetts Department of Public Health since graduation, the first four years as assistant chemist at the Lawrence Experimental Station, and since November 1, 1897, in his present position. He is a member of the American Chemical Society, American Public Health Association, New England Water Works Association, Boston Society of Civil Engineers, and Sons of the American Revolution. He has written annual reports of the Massachusetts Department of Public Health and he has given talks before different organizations on subjects connected with the work of the Department of Public Health. His hobby is photography.

FORBES, WILLIAM STUART (1889-90)

Little Building, Boston, Massachusetts.

President and Treasurer, The Forbes Lithograph Manufacturing Company.

Born, 1871, Jamaica Plain, Massachusetts.

Married, 1898, Maude Leslie Hayward. Children, William Stuart, Jr., Barbara.

Home, 30 West Cedar Street, Boston, Massachusetts.

"I HAVE spent practically my whole life since I left Technology in The Forbes Lithograph Manufacturing Company. My father started the business, and after a year in Technology, the chemistry course of which helped me a whole lot to an understanding of the work I was called upon to do, I came into the business and have worked at every job from the bottom to the top. For three years I worked on factory time as an employee before I was allowed to go near the office.

"I have filled various positions with the National Association of Employing Lithographers, and during the war I represented the Association as Chairman of the War Service Committee, which had to do with all its relations with the Government.

"I have been a member of the Executive Committee of the Associated Industries of Massachusetts for several years, but had to give it up on account of my health.

"I was a member of the Admissions Committee of the Algonquin Club for three years. I am a director of the Home Market Club, and am a member of the Board of Trustees of the D. K. E. Chapter House Fund." He is, also, a director of the Merchants National Bank of Boston; and is a member of the Algonquin Club, Union Boat Club, Winchester Country Club and Eastern Yacht Club. He takes great pleasure in horseback riding and all outdoor sports.

It is said that

"The Development of Artificial Light" by Maxfield Parrish marks the last step, at present at least, in artistic lithographic reproduction. This is a production of the Forbes works, which has always produced lithographic color printing of the highest order. Beginning in 1865 in a part of a third floor, the industry now employs 1,100 skilled workers in forty-five departments, occupying seven and one-half acres of floor space and operating 100 modern presses."

FOSS, HERBERT COLLAMORE (1889-90)

FOWLE, ARTHUR EDWIN X G

1242 Nicholas Building, Toledo, Ohio.

Treasurer, Libbey-Owens Sheet Glass Company, Toledo Glass Company, Toledo Libbey-Owens Sheet Glass Company. Vice-President, Fairfield Sheet Glass Company.

Born, June 28, 1870, Newton Centre, Massachusetts.

Married, June 11, 1903, Mary Louise Stevens. Children, Edwin Stevens (deceased), John Miller, Louise.

Home, 2520 Scotwood Avenue, Toledo, Ohio.

SINCE graduating in chemical engineering at the Institute, Fowle has had a somewhat varied career, the first three years being spent with the Boston Bridge Works, as draftsman, estimator and travelling salesman. The next four years were spent with William F. Jobbins, Inc., Aurora, Illinois, as chemical engineer and contracting salesman. Fowle then spent 12 years with La Compañia Industrial Jabonera, at Gomez Palacio, Durango, Mexico, as Superintendent of the Soap and Glycerine Departments. In 1912 Fowle made a hurried exit from Mexico and entered upon his position with the

Yaryan Naval Stores Company, which was the first company to make a success of utilizing the dead and down timber and stumps of the Southern forests for the production of rosin, turpentine and pine oil. In 1914 Fowle became manager of the Toledo Glass Company, with which company and affiliated companies he is now serving in executive positions.

Fowle writes:

"Two years in midst of Mexican Revolution from the time the first shot was fired back of my house on November 10, 1910, to the time I was finally driven out on the run with my family in May, 1912, busted and down but not OUT. Landed in Gulfport, Mississippi, with $4.85 in my pocket, but no bills payable. Had a wonderful twelve years' experience in Mexico, but glad I can now give my address as U.S.A.

"Have always aspired to executive work in industry, and my course in chemical engineering has been the basis of my endeavors since graduation. I consider Course X unquestionably the best foundation for industrial work and I have been able to induce several young fellows to pursue it at Tech, as well as other colleges.

"Was out of my element in the position with the Boston Bridge Works which I took in '93 during the Panic — when even jobs were scarce as hen's teeth. Left the Bridge Works in December '96 and ran into W. W. Carter, Course X '93, who told me that he was leaving the employ of Jobbins and Van Ruymbeke of Aurora, Illinois, manufacturers of glycerine machinery, and that they were looking for a chemical engineer. I wired them the same day and landed the position with instructions to report to their engineer, H. H. Merrill, also Course X '93, at the factory of the James S. Kirk Soap Company in Chicago. Lucky it was for me, as Merrill had been with this company since graduation and he laid himself out to put me through the ropes. Remained with them until 1900, when they sent me to Mexico to erect and install one of the largest glycerine plants on the continent. After completing the installation of the plant, I saw what proved to be a good opportunity and applied for position as plant manager, remaining with the Mexican Company until the Revolution drove me out in 1912. The only classmate I ran across during my twelve years in Mexico was C. V. Allen, Course VI, who represented the Westinghouse Electric Company, and is, I think, still located in Mexico City.

"My work as plant manager with the Yaryan Naval Stores

Company at Gulfport, Mississippi, in 1912 to 1914, was very interesting, as it consisted in the recovery of turpentine, pine oil and rosin from the stumps and down-timber of the Mississippi cut-over lands. It was surely a step in advance of by-product recovery, and in addition to the recovery of these important elements, the barren stump lands were cleared up and made suitable for agriculture. The increase in cost of gasoline, which was the principal recovery agent used, put the company out of business and they went into hands of receiver, and I landed with the Toledo Glass Company at Toledo in 1914.

"This company were just starting an experimental plant for the manufacture of sheet glass by the Colburn Process, the patents on which they had recently bought at bankrupt sale, after over one million dollars had been spent by others in endeavoring to perfect the process. We had our trials and tribulations, but after a further expenditure of over $600,000 and two years of strenuous efforts, success was assured and the Libbey-Owens Sheet Glass Company was incorporated and took over the patent rights and built a large plant at Charleston, West Virginia, which today is the largest sheet glass factory in the world, with an annual capacity of two million 50 ft. boxes of sheet glass.

"Spent five months in Europe during 1920 with one of our attorneys, interesting Belgian and French manufacturers in our foreign patents. We now have three plants in the United States and plants in Japan, Canada, Belgium and Switzerland, and others in view throughout Europe. Heretofore, all flat glass was first made in cylindrical form, while this process pulls the glass out in flat sheets and is admittedly revolutionary.

"I am now out of the manufacturing end of the game and simply hold down the job as treasurer, besides being treasurer of the Toledo Glass Company, Toledo-Libbey-Owens Sheet Glass Company and vice-president of the Fairfield Sheet Glass Company."

He is a member of the Masons, Toledo Club and Toledo Chamber of Commerce; he has written articles on the "History of Manufacture of Sheet Glass" and given informal talks on conditions in Mexico. His amusements are hunting, fishing and camping and his hobby, gardening.

He was chairman of the Manufacturers Committee, Liberty Loan Campaigns and Red Cross Drives at Charleston, West Virginia, during the war.

FRANCIS, IRA JOHNSON (1889-90) VI
646 Folsom Street, San Francisco, California.
President, John A. Roebling's Sons Company.

*FRISBIE, WALTER LEVI II G

Walter Levi Frisbie died on August 30, 1916, having been an inmate of a Hartford hospital for many years. After graduating from the Institute he studied law at the Yale Law School and was admitted to the Bar. He was well and widely known in Waterbury, Connecticut, where he practised law for a time, but after a few years he was afflicted with a mental disease from which he never recovered.

FULLER, CLARENCE EDWARD (1889-90) IV
No address.

Up to 1909 had been in the granite business since leaving the Institute, and for fourteen years had been in the position he then held as draftsman with a wholesale granite firm.

GAMBLE, WILLIAM BURT IX G
476 Fifth Avenue, New York City.
Chief, Division of Science and Technology, New York Public Library.
Born, January 22, 1871, East Saginaw, Michigan.
Home, 79 Washington Place, New York City.
Unmarried.

Gamble studied at Harvard Medical School, 1893-94, and was a teacher from 1894-95; assistant secretary, Detroit Chamber of Commerce, 1895-96, and from the latter date to 1904 was engaged in mining, at first with the Cement Creek Gold Mining Company and later as secretary and treasurer of the Champion Mine at Silverton, Colorado. In 1904 he became connected with the Detroit Graphite Manufacturing Company, paint manufacturers, and later became advertising manager of that company. For several years he has been Chief of the Division of Science and Technology of the New York Public Library. He has studied at the New York State Library School, and is a member of the American Library Association. He has written numerous bibliographies on scientific and engineering subjects. His hobby is amateur theatricals.

GARDNER, JOHN HOWLAND II G '94

Pier 14, North River, New York City.

Vice-President, New England Steamship Company.

GARDNER has been connected with the marine interests of the New York, New Haven and Hartford Railroad since his graduation from the Institute in 1894. For three years he was assistant in the lighterage department at Harlem River Station, New York, after which he was made assistant superintendent of marine construction at that point. While holding this position he was transferred to the marine district repair shops at Newport, Rhode Island, and in 1904, he was made superintendent of marine construction of the New York, New Haven and Hartford Railroad, and later his title was changed to superintendent of marine construction of the New England Steamship Company, under which name the marine interests of that road are now known. He has for several years been vice-president of the company. During the war, he was a member of the commission in charge of inspection, reporting on available places for bases and sub-bases for Coast Patrol, 3d Navy District, Navy Department; member, Board of Surveys and Consulting Engineers of U. S. Shipping Board in charge of reconditioning and putting in commission the German and Austrian vessels taken over by the board; special representative to the Peruvian Government, charged with examination and appraisal of all enemy tonnage in Peru and negotiations with the Peruvian Government for taking over such tonnage; and in general charge of repairing and putting vessels in commission for U. S. Service.

GARLICHS, CHARLES FREDERICK (1890-93) IV

130 West 42nd Street, New York City, Bush Building.

Architect, Chief Draftsman in office of Helmle and Corbett.

Born, August 21, 1873, Brooklyn, New York.

Married, November 11, 1908, Theodosia Rankin.

Home, 600 Jefferson Avenue, Brooklyn, New York.

"AFTER leaving M.I.T., entered office of James E. Ware, Architect, in New York City and was with that office for seventeen years. Then entered office of Frank J. Helmle (now Helmle and Corbett), Architect, and am still there.

"During the war served for a while with the United States Housing Corporation in Washington, D. C., until the armistice."

He is Secretary and Director of the Caledonian Hospital of the City of New York.

GARSTANG, CHARLES EDWARD (1890-91) IV

903 Los Angeles Trust and Savings Building, Los Angeles, California.

Architect.

Born, May 11, 1869, Davenport, Iowa.

Married, 1906, Druna Hamilton.

Home, 5321 La Cresta Court, Los Angeles.

HAS followed the profession of architecture ever since leaving the Institute. He is a member of the Masonic fraternity.

*GAYLORD, WALLACE KENDALL V G

WALLACE KENDALL GAYLORD died March 19, 1912.

He left Boston for California in July, 1893, and in September of that year he began teaching chemistry and mathematics at Throop Polytechnic Institute. Our last report of him, preceding the notice of his death, was in 1909, when he was still at Throop Institute, as professor of Chemistry—and registrar. He was at that time member of the Masons, the American Chemical Society and the Society of Chemical Industry; also a past president of the Los Angeles Chemical Club.

He married May Buchanan, December 24, 1898.

GILCHRIST, CLARENCE DYER (1890-92) IV

419 State Street, Schenectady, New York.

Department Store Manager.

Born, March 31, 1872, Ovid, Seneca County, New York.

Married, June 24, 1903, Halley Phillips. Children, Bob, Clement.

Home, 109 Union Street, Schenectady, New York.

FROM 1892-97, Gilchrist was engaged in building construction, for two years in Louisville, Kentucky, and on special work for the United States Fish Commission. He went abroad in 1897 and from then until 1901 was attached to the Paris Exposition Commission, for which he did expert work. He returned to the United States in 1901 and spent the next seven years in river and harbor contract work; 1908-10, in construction work for the Pennsylvania Railroad. From June, 1910, to the present time, Gilchrist has been with the W. T. Grant Company, for two years, 1915 to 1917, as store manager and in charge of construction of new stores, the rest of the time in the merchandising game.

Gilchrist has done some European travelling and made an investigating trip to the Azores Islands.

Before entering the Institute, he was a cadet at the United States Naval Academy (1887-88). He is a member of Technology Club of New York, a Mason and Knight Templar. His hobby is etchings.

GILL, MRS. A. C. (Eaton, Ella E.) (1890-91)
403 Wyckoff Avenue, Ithaca, New York.

HAVING previously been graduated from Smith College, Miss Eaton (now Mrs. Gill) took special work with the class in one course only.

*GILMORE, HARRY SMITH (1889-90)
Died August 11, 1891.

GILMORE, HOWARD II '92 VI '93 G
Holliston, Massachusetts.
President and General Manager, Pittsfield Poultry Farm Company.
Born, September 11, 1870, Easton, Massachusetts.
Married, June 23, 1896, Gertrude A. Blaisdell; March 30, 1915, Agnes K. Baker.
Home, 97 Holland Road, Brookline, Massachusetts.

FOR about a year and a half after graduation, Gilmore was with the Westinghouse Electric and Manufacturing Company at Pittsburgh, Pennsylvania; then for a few months in the Boston Elevated Railway laboratories, and for a year, assistant superintendent, Bernstine Electric Company, Boston. From 1896 to 1912, Gilmore was general manager and principal owner of the Gilmore Electric Company, manufacturers of incandescent lamps, motors, generators and electrical supplies, at South Boston, Massachusetts. He sold the business, including patents and machinery, to the General Electric Company in 1912 "at a good profit". He had become interested in 1911 in the Pittsfield Poultry Farm Company, and in 1912 became actively interested in the company and is now general manager and president of Pittsfield Farms, "Manufacturers of Day-Old Chicks and Farm Produce". Gilmore has also maintained an experimental and research laboratory, "which has been profitable but developed nothing to startle the world".

He is a member of Megantic Fish and Game Corporation and Brae Burn Country Club. He gives his hobby as—experimental work from radio to incubators.

GILSON, HOWARD AUGUSTUS (1889-90)

295 Franklin Street, Boston, Massachusetts.
Manufacture and Installation of Elevators.
Born, September 23, 1873, Redfield, Iowa.
Married, July 29, 1894, Bertha E. Letourneau.
Home, 44 Shore Drive, Winthrop, Massachusetts.

"MY course at Technology was a special one and comprised the shop work and mechanical drawing—and while there I became interested in the work in the Lowell School of Design, which was conducted in the shop buildings and made application for admission, which was granted.

"I went to the Lowell School of Design for two terms, most of the time studying textile design, and, desiring to get practical experience, I entered the Boott Cotton Mill in Lowell and worked in various departments for a year, but on account of illness I left Lowell and returned to my home. Shortly after returning home I had an opportunity to go into the drafting room of the Thompson-Houston Company of Lynn—but in less than a year was 'laid off' with many others.

"In the spring of 1894, I shipped on one of the Johnson Line boats, running from Boston and London, but one trip was sufficient and shortly after my return I was married, in July, 1894.

"From then until 1902, I spent in the employ of Thompson's Spa, Washington Street, Boston, with the exception of one year in the 8th Regiment, Massachusetts United States Volunteer Infantry, enlisted April 28, 1898, and discharged April 28, 1899.

"In 1902, I entered the employ of the Boston Office of the Elektron Manufacturing Company of Springfield, Massachusetts, (who manufactured and installed electric elevators) as a construction helper. In 1904, I was put in charge of all emergency and repair work, testing, etc.

"In 1906, I associated myself with Mr. F. S. Payne and Mr. F. A. Smith, forming a Massachusetts corporation under the name of F. S. Payne Company, to do a general elevator business, eventually building a plant in Cambridge, Massachusetts, and now manufacturing and installing electric passenger and freight elevators, electric and hydraulic dumb waiters, ash hoists, elevator controller apparatus and elevator accessories, with branch offices in Lowell, Massachusetts, and in Connecticut.

"My military experience was as follows: 1891—joined Com-

pany H, 5th Massachusetts Regiment of Infantry, and was 2nd Sergeant of the Company in 1898, but as the 5th Regiment was not selected by Governor Wolcott to be one of the four regiments to make up the Massachusetts quota at the time of the Spanish War, I joined Company M of the 8th Massachusetts Regiment, Somerville, as a private. We were mustered into the service at South Framingham and sent to Chickamauga Park, Georgia, where I was shortly made a corporal and was detailed on recruiting duty in Somerville, Massachusetts, for a period of about four weeks, and then returned to Chickamauga Park.

"About this time the men began to fall sick with malaria and typhoid fever and after my six tent mates were one after the other taken with the sickness and moved to the hospital, I managed to obtain a furlough of thirty days back home and believe that in this way I avoided the severe sickness. The regiment was moved from Chickamauga Park to Lexington, Kentucky, where I rejoined it and where we spent about three months recuperating.

"We were next moved to Americus, Georgia, where the regiment was gotten into shape in about three months, and then we were shipped from Savannah, Georgia, on the United States Transport *Obdam* to Matanzas, Cuba, where we were stationed for three months, returning to Boston on the United States Transport *Meade,* and were mustered out at the Irvington Street Armory.

"On discharge from the United States service I was automatically restored to my old position in Company H, 5th Massachusetts Regiment, where I remained until 1901, completing nine years' service in the Massachusetts Militia.

"Subsequently I enlisted for one year in the Massachusetts Cavalry Troop A, known as the 'National Lancers'.

"During the recent war I participated in the various drives, and the F. S. Payne Company manufactured elevator equipment for several arsenals and navy yards and many machines for ammunition hoists, the principal installation being four large elevators for the Wharf Shed, Boston Army Supply Base, South Boston.

"Under the title of interesting experiences, my year in the United States service would come first.

"Have made a number of trips with my wife to the West Indies, visiting Cuba, the Isle of Pines, Porto Rico, Jamaica, Costa Rica, Panama, most of the Windward and Leeward Islands, Georgetown, British Guiana, a tour of Florida, and recently a motor trip through California.

"My training at Technology was in the shops and instruction in mechanical drawing, and while it was about eleven or twelve years later that I went into the elevator business, I found that my instruction had been so thorough in the fundamentals, that I was able to advance very rapidly, and I feel that without that training, I would not have succeeded as well as I have.

"Not coming in contact with many men while at Technology and being there but one year, my acquaintance with '93 men has been quite limited."

He is a member of the Masonic fraternity (32d degree, Scottish Rite), Shrine, Odd Fellows, Boston City Club, Kiwanis Club, United Spanish War Veterans, National Lancers. His amusements and hobbies are automobiling, bowling and tennis.

GLIDDEN, GEORGE BLANCHARD (1889-91) II

551 Tremont Street, Boston, Massachusetts.
Treasurer, George Frost Company.
Born, October 25, 1870, Roxbury, Massachusetts.
Married, May 6, 1896, Minna Wesselhoeft.
Home, Dighton, Massachusetts.

"ON leaving the Institute, I worked in a national bank, then went into the engineering business, and in 1902, entered the employ of the George Frost Company, where I have been ever since. My work is the manufacturing end, as superintendent and a director in the corporation, and now treasurer.

"As to quasi-public offices, I have been a Selectman, Overseer of the Poor, and a member of the Board of Health of the Town of Dighton for the past nine years, and I am a trustee of the Massachusetts Homeopathic Hospital.

"With reference to work pertaining to the recent war, I cannot say that I did very much except going to England, Scotland, Belgium, and France in the early part of 1918, on an observation tour for the New England Liberty Loan Committee. I visited ship yards, dry docks, ammunition works, airplane factories, flying fields, prison camps, hospitals, hospital ships, army and navy training schools, army and navy bases, army bakeries, reclamation stations, and the British Grand Fleet, boarding from the largest to the smallest craft, including submarines and tenders. I also visited army and navy aviation bases, all branches of the American training camps, the army general headquarters, and the Red Cross headquarters. I

was in London and Paris during air raids, and in Paris the first four days of the bombardment by the long-range gun, being over Paris on the third day of this bombardment. I visited the British, American, and French fronts; ruined cities and towns, and towns being ruined; front line dressing stations; field hospitals; battle fields; observation posts; batteries in action; rest camps; Verdun and its forts during the bombardment; cemeteries of the soldier dead; saw airplane battles, and anti-aircraft batteries in action. In fact, saw everything from the back to the front in the army, navy, and aviation service. Met A. Bonar Law, Lord Northcliffe, Marshal Joffre, and President Poincairé. On my return I spoke for the Liberty Loan and the Red Cross from Maine to Connecticut.

"As to experiences, I doubt if I have had what could be called noteworthy, but of interesting experiences, I have had many, especially during the war, but they were more interesting to me than they would be to others.

"I don't know as I can state definitely how Technology training has benefited me, but am positive it never did me any harm."

He adds, regarding amusements and hobbies—"Anything outside of business is an amusement and many things in business are amusements. My hobby is the farm on which I live." He is a member of Technology Club of New York, Boston City Club, Engineers' Club, Boston; Joseph Warren Commandery Knights Templar, Massachusetts Consistory 32d Degree Masons; and Boston Chamber of Commerce.

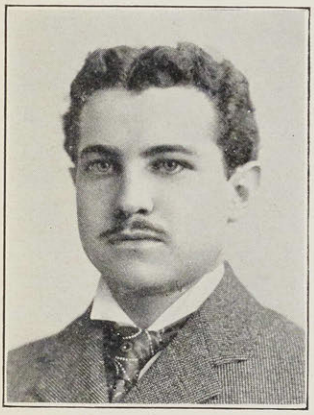
GODCHAUX, JULES (1889-93) II

1319 Elemore Street, New Orleans, Louisiana.

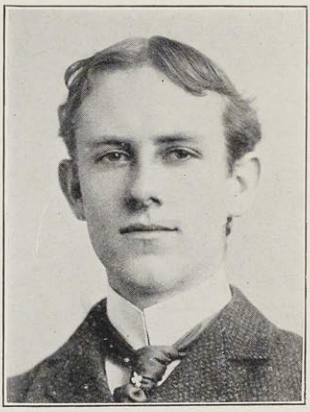
GODCHAUX has not been heard from for many years. The following is taken from the 1909 Catalogue:

Since 1893 Godchaux has been resident director and manager of the Leon Godchaux Company, Ltd., in addition to and in connection with which work he is now general manager of the Sterling Sugar and Refinery Company, Ltd., and general manager of the Shady Side Sugar Company, Ltd. As constructing engineer he has built the Raceland, Reserve and Kenilworth sugar factories, and in 1898, he operated the latter for the Kenilworth Sugar Estates, Ltd., of London, England. Meanwhile he has been engaged in drainage work and in reclaiming lowlands in Louisiana, and in 1893 he closed a break in Bayou Lafourche, an outlet of the Mis-

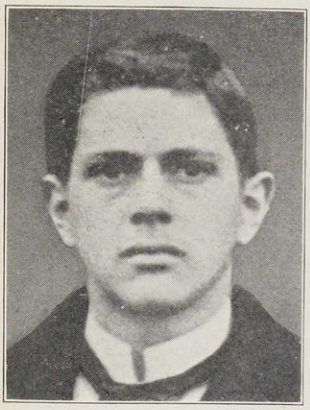
George B. Glidden

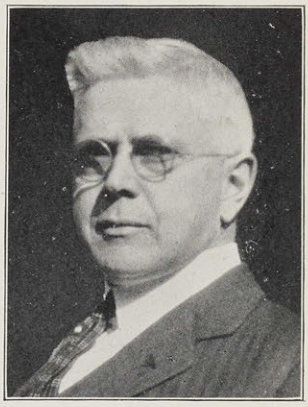


Jules Godchaux

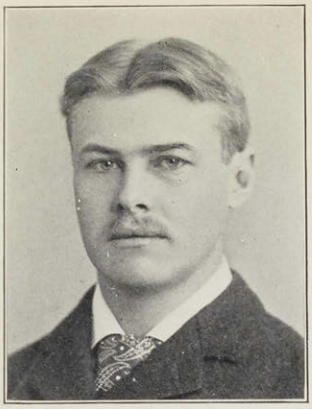


Marvine Gorham



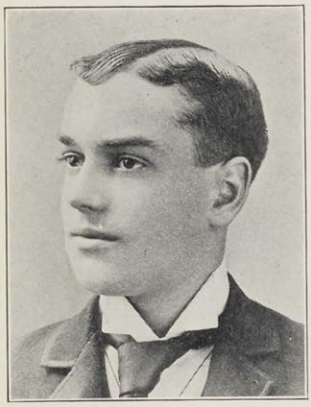


Frederick W. Hadley



Frederick H. Harvey

Edward J. Holmes



John C. Hawley

J. Fred Hinckley

sissippi River. He is also connected in a business way with several New Orleans mercantile houses. Godchaux takes an active interest in politics. "I have been what you 'Yankees' call an alderman from my ward. I was delegate to the Republican Nominating Convention at Philadelphia, 1900. Am at present chairman of the Republican Third Congressional District Committee of Louisiana. Was defeated for the State senate by a good old southern democrat."

He is a member of the Engineering Association of the South, the Louisiana Engineering Society, the Attakapas Club, Harmony Club, The Chess, Checkers and Whist Club, The Young Men's Hebrew Association and the Phi Gamma Delta fraternity.

GORE, HENRY WATSON, JR. (1888-89, 1891-93) IV
No address.

IN 1909 Gore was a member of the firm of Hurd and Gore, architects, with office at 8 Beacon Street, Boston, and was living at Braintree. At that time he wrote:

"Most of my time has been spent in the architectural profession, having done some work for myself and others including designing large work, perspective and water color rendering. I have also spent two winters in Georgia in agricultural business." He had many years' service in the First Corps Cadets, M. V. M.

GORHAM, MARVINE II G
422 Prudential Building, Buffalo, New York.
Manufacturers' Representative.
Born, November 1, 1870, Buffalo, New York.
Married, June 30, 1909, Sarah G. White. Children, Elizabeth Gibson, Marvine, Jr., Ellen Marvine.
Home, 133 Hodge Avenue, Buffalo, New York.

WITH Yale and Towne Manufacturing Company for two years; with the Buffalo Bolt Company for seven years, during which time he made two trips to Europe for the Company; Michigan Bolt Nut Company one year; C. C. Wormer Machinery Company for six years; for several years, as secretary and treasurer of the Schweppe and Wilte Manufacturing Company of Detroit and now manufacturers' representative at Buffalo, New York.

Was a member during the War of the Production and Inspection Department, Signal Corps (later Aircraft Production Board), working in Buffalo, Elmira, Ithaca, Toledo and Detroit.

He is a member, Saturn Club of Buffalo, M.I.T. Association of Buffalo and University Club of Detroit. His greatest enjoyment is in tennis, motoring and doctoring his automobile.

GRANGER, CARRIE AMELIA (1890-91) VII

GRAVES, WILLIAM HAGERMAN; B.L. (1890-92) IV

53 State Street, Boston, Massachusetts.

Engineer and Manufacturer's Representative. District Manager, Kerner Incinerator Company of Milwaukee.

Born, August 30, 1867, Tecumseh, Michigan.

Married, July 23, 1895, Carolyn Elliott. Children, Marion (Mrs. Code), Theodore, William H., Jr. Grandchild, one.

Home, 69 Brattle Street, Cambridge, Massachusetts.

AFTER a sketching tour in France in 1892, Graves was a draftsman for about three years, first in Milwaukee and later in the office of Andrews, Jacques and Rantoul, architects, of Boston. In 1895, he made another trip abroad, visiting England and France. With H. W. Grueby, in 1897, Graves organized the Grueby Faience Company. He developed the manufacture and the use of Grueby tiles and pottery in architecture and decoration and in recognition of his work was awarded gold medals at the International Exhibitions at Paris, Turin and St. Petersburg and grand prizes at Buffalo and St. Louis. Later, as department manager for Waldo Bros., he developed a tiling contracting business in Boston, and still later introduced into New England a useful labor-saving invention known as the Kernerator. The most interesting experiences of his career are first, the cruise from Marblehead to Miami in the "hurricane proof" yawl *Physalia* of the Carnegie Institution, Department of Marine Biology; second, six months at Keokuk, Iowa, as superintendent of a sub-contract in the building of the hydro-electric power plant and dam across the Mississippi River, and third, military service as a private in the First Motor Corps during the Boston Police Strike. He was president of the Boston Tiling Contractors Association, 1919-20; and since 1922 has served as secretary and treasurer of the Boston Commission on Apprenticeship.

During the War, he was examiner for the National War Labor Board, holding hearings in labor controversies in connection with war industries. Graves was a graduate of Cornell in 1890 with the degree of B.L. Of his Tech training, he writes: "It has taught

me the use of sources of information and the value of the scientific method"; and he urges more encouragement and support for the departments of English and History. His contacts with '93 men since leaving Tech have been "regretfully only occasional, with a few now practising architecture or in the faculty." His youngest son is taking Course III—M.I.T. '25.

Graves has written articles on Pottery and the use of Decorative Tiles for "Handicraft" and the "Architectural Review" and has given talks on Pottery, Terra Cotta, etc., at the Architectural League, M.I.T., and the Boston Museum of Fine Arts.

He is a member of the Society of Technology Architects; Boston Architectural Club; Copley Society; Kappa-Alpha Society, Cornell Chapter; Union Boat Club and St. Botolph Club of Boston. His amusements and hobbies are tennis, sailing, chess, architecture and travel.

GUPPY, GEORGE (1889-92) II

With Dodd and Richards, Architects, Los Angeles, California.
Business address, 905 Brack Shops, Los Angeles, California.
Born, March 29, 1872, New York City.
Married, October 3, 1921, Ethelyn J. Morris. Children, Ruth and John W.
Home address, 405 South 5th Street, Alhambra, California.

IN 1898, Guppy was draftsman with Norcross Brothers, Contractors of Boston; in 1909, he was practising architecture at 22 Congress Street, Boston. For some years we had no information regarding him but finally got his address.

He served in the war as Lieutenant in the Air Service, Military Aeronautics, from November 6, 1917, to January 11, 1919. From April to July, 1918, Guppy was again a student at the Institute, taking an intensive course in Military Aeronautics and receiving the degree of Aeronautical Engineer. His address after the war was, for some time, R. C. House Hospital Reconstruction at Palo Alto, California. On leaving the hospital he returned to the practice of architecture and settled in Los Angeles. He is a member of the "Alhambra Athletic Club". To our question as to lectures and addresses delivered, Guppy replies "A few rather feeble imitations of Linus Faunce while at the Palo Alto U. S. P. H. S. Hospital"; and as to what he has accomplished, "He done his duty as he seen it even when the world thought him cock-eyed. His greatest suc-

cess has been to attain happiness." To our request for a photograph, "Uncle Sam has me in his rogues' gallery—why tempt fate further?"

There is some mystery as to his acquisition of Ruth and John, aged respectively twenty-five and twenty-two.

Home is his hobby.

GUTMANN, WALTER USHER (1889-90)
130 Arch Street, Lewiston, Maine.

HADLEY, FREDERICK WALTER VI G
Georgia Railway and Power Company, Atlanta, Georgia.
Born, July 13, 1871, Winterset, Iowa.
Married, April 17, 1901, Anna Miller Holbrook. Children, Frederick Holbrook, Anna Elizabeth.

"BEGINNING soon after my graduation in 1893, I was with the Westinghouse Electric Company in general shopwork and electrical testing—engineering department—and general construction. Subsequently with the West End Street Railway Company, Boston, on Electric Power Generation; Boston Terminal Company on central station superintendence; Westinghouse, Church, Kerr & Company, New York, on central station design and construction. Since 1904 have been superintendent of hydro-electric power generation for electric power interests in Georgia—located at Atlanta since that date. I am now superintendent of water power for the Georgia Railway and Power Company.

"Since July, 1893, I have been continuously on a salary, so much per month, with just 3 days once in the nineties when I lost 3 days' time on a change of environment. I never made any money by business methods—lost more than I have made by investments and have enjoyed life operating successfully and economically properties promoted and managed by better business men. In other words, I believe I can qualify as a very careful chauffeur for hydro-electric power properties."

During the war, Hadley as superintendent of water power plants of the Georgia Railway and Power Company at Atlanta, was in charge of plants for operation of essential industries in forty-five towns and cities.

Hadley is a member American Institute of Electrical Engineers, Capital City Club and West End Golf Club of Atlanta, Atlanta

Chamber of Commerce and Masonic orders. His amusements and hobbies are golf, automobiling, fishing, chickens and babies; Americanism and white supremacy.

*HAGAR, EDWARD McKIM; M.M.E. II G

EDWARD MCKIM HAGAR died suddenly of pneumonia on January 18, 1918, in New York, after a very short illness.

After graduating from the Institute, Hagar took a post-graduate course at Cornell, receiving in 1894 the degree of M.M.E. For a time, he was manager of the Chicago office of the Southwark Foundry and Machine Company, engine builders of Philadelphia. In 1897, he organized the firm of Edward M. Hagar & Company of Chicago, and for three years conducted a business as sales representative for machinery manufacturers. Hagar was for two years president of the Association of American Portland Cement Manufacturers. He also founded the Cement Products Exhibition Company, which conducts the annual cement shows.

In 1900, he became manager of the cement department, Illinois Steel Company, and first placed Universal Portland Cement on the market in May, 1900. In October, 1906, the Portland cement business of the Illinois Steel Company was taken over by the Universal Portland Cement Company, a subsidiary of the United States Steel Corporation. He was made president of the cement company and held that office for fifteen years until he resigned to organize the Hagar Portland Cement Company, with general offices in Chicago. He made a generous contribution to the New Technology by a gift of cement used in the construction of the new buildings.

On March, 1916, he became president of The Wright Company and its allied companies, the Simplex Automobile Company, the General Aeronautic Company and the Empire Foundry Company.

Hagar resigned from these companies to become president of the American International Steel Corporation, a subsidiary of the American International Corporation, organized to engage in the exportation of iron and steel products, offices to be opened in the principal cities of the world, the company's general offices being located in New York. The organization was in fine running order and Hagar was very happy in the new work at the time of his death.

He was a member of many technical and social clubs and was vice-president of the New York Technology Club when he died. The Institute and the Class of '93 have lost a loyal friend. He was married December 6, 1899, to Martha W. Barry.

The Class Baby

Mrs. Theodore Frothingham, Jr.
(Eleanor Fabyan)

*HAHN, WILLIAM IRWIN (1889-91) II
Died July 22, 1904.

THE following notice of Hahn's death appeared in one of the Boston papers: "William Irwin Hahn, formerly of East Boston, died Friday (July 22, 1904) at Archer, Florida, where he went two years ago for his health. He was thirty-three years old and was well known in East Boston. He graduated from the East Boston High School, class of 1889, then took a special course at the Massachusetts Institute of Technology. He engaged in commercial pursuits as an engineer, then entered the Boston University Law School in 1899, graduating with honors in 1902. His health failing, he went south. He was prominent in social affairs of East Boston, being for years active in the management of the Brereton and Jeffries Winter Clubs."

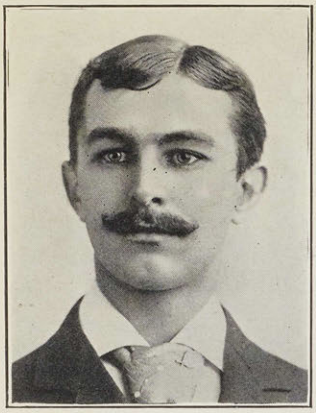
*HALL, ALBERT PERCIVAL (1888-92) I III
Died September 2, 1919.

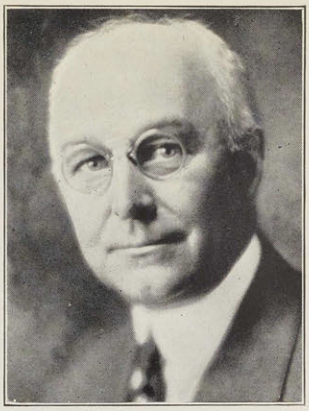
ALBERT PERCIVAL HALL was located in Chicago, Illinois, in 1898; and was with the Milwaukee Telephone Company at Milwaukee, Wisconsin, in 1909.

HALL, JOHN WENTWORTH (1889-91) IV
State House, Boston, Massachusetts.
Clerk in office of State Auditor, Commonwealth of Massachusetts.
Born, August 29, 1864, Roxbury, Massachusetts.
Home, 8 Hillside Street, Roxbury, Massachusetts.
Unmarried.

"As I was identified in my studies at Tech with '92 almost entirely and as I am now Secretary for '92, perhaps the outline on the first page should be enough for me. I would have left this unanswered, only being a Secretary, and having experience in extracting answers, I have pity on you." This was the reply Hall sent to our questionnaire, but our files give a little further information.

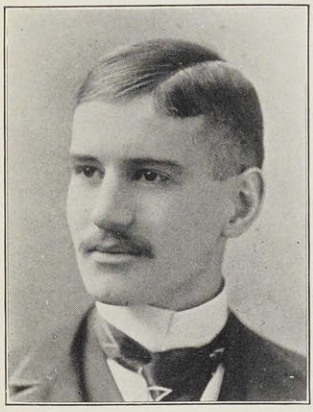
After leaving Tech, he spent six months in the city architect's office, City Hall, Boston, resigning, on the death of his father, to take charge of the business in which he had assisted his father for seven years before going to Tech. The English pottery firm which he represented became involved in difficulties in other countries and went out of business. Hall then became associated with Green and

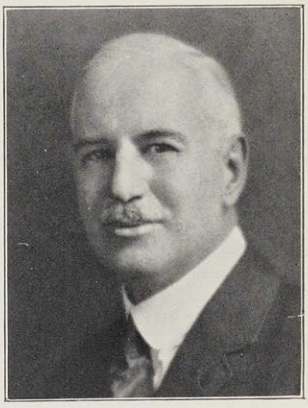




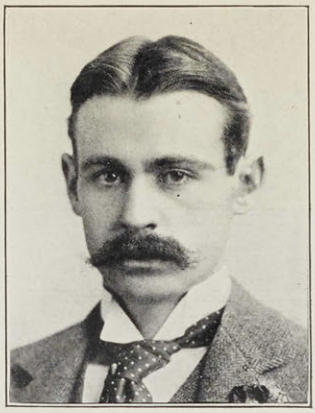
Charles F. Hopewell

William G. Houck

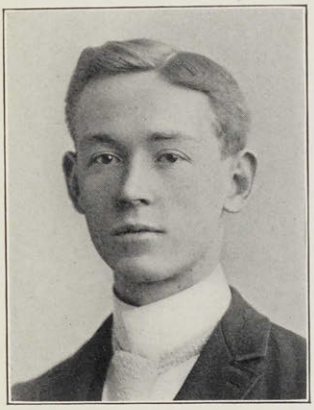




Frank Houghton



*Frederick H. Howland



Daniel D. Jackson

*Lawrence S. James

Haley, engaged in roofing and metal work, which firm was consolidated in 1908 with W. A. Murtfeldt Company at 161 Devonshire Street, Boston. For some years he has been a clerk in the office of the State Auditor.

He says his hobby is music but he seems also to have been much interested in military affairs. He served in the First Squadron of Cavalry, M. V. M., two years as private, five years as paymaster and eight or more years as first lieutenant and adjutant.

His military record during the world war is: Capt. A. S. C.; 1st Lt. 1st Mass. Cav. (later 102d M. G. Bn.), 25 July '17; Capt. Army Service Corps, 22 Oct. '18. A. E. F., 23 Sept. '17—15 Sept. '19; Supply Officer, Advanced Sect., Lines of Communication, 18 Feb. '18; Post Adj., Advance, Dept. No. 1, S. O. S., Is-sur-Tille, 25 Feb. '18—1 Sept. '19.

Hall is a member, All York Right Masonic bodies, National Lancers, Military Order of the World War, Appalachian Mountain Club, American Legion, City Club, Boston.

*HANCHETT, GEORGE TILDEN VI G

Died May 6, 1919.

GEORGE T. HANCHETT had a stroke of apoplexy in 1918 and died from a recurrence of that trouble a year later at the Battle Creek Sanitarium on May 6, 1919. He was born at Hyde Park, Massachusetts, on September 4, 1871. Immediately after graduation from the Institute he was connected with the Commercial Electric Construction Company and E. P. Roberts and Company of Cleveland, Ohio. During 1894, he was consulting engineer at Providence and machine designer of dynamos and motors for the Collyer Machine Company of Pawtucket, Rhode Island. In 1895, he joined the editorial staff of the *Electrical World* and later, after opening an office as consulting electrical and mechanical engineer, he was a frequent contributor to the *Electric Railway Journal.* In 1900, he published a book entitled "Modern Electric Railway Motors." Other work which he did in the electric railway field was the invention, with F. B. Sage, of a direct reading ohmmeter and the perfection and installation of a sectional third-rail system in the Belt Line tunnel of the Baltimore and Ohio Railroad. He was married in 1894 to Dorothy A. Lewis and they had a daughter, Dorothy. He was a member of the Royal Arcanum, the New York Electrical Society, the American Electro-Chemical Society and a Fellow of the American Institute of Electrical Engineers.

HANSCOM, ISAIAH CLIFFORD (1889-90)

Kearny, New Jersey.

Draftsman, Hull Estimating and Designing Department, Federal Shipbuilding Company.

Born, November 25, 1870, Raynham, Massachusetts.

Married, November 22, 1892, Maud Hallett Savage. Child, Clarence Dean.

Home, 22 Chelsea Place, East Orange, New Jersey.

HANSCOM has been in naval architecture since leaving the Institute—at Bath, Maine; Baltimore, Maryland; Portsmouth, New Hampshire; Boston, Massachusetts; Newport News, Virginia; Brooklyn, New York; Washington, D. C.; Mobile, Alabama, and Kearny, New Jersey. He has been hull draftsman, chief draftsman of the Atlantic Corporation at Portsmouth, New Hampshire, assistant naval architect, Mobile Shipbuilding Company, in charge of hull detail plans for the Federal Shipbuilding Company until changed at his own request to the designing division.

During the Great War, as well as during the Spanish War, Hanscom was doing shipbuilding—a strenuous business in war time. Of his most interesting experiences he writes:

"All those in the Portsmouth, New Hampshire, Navy Yard who were there during the Spanish War and after, had the unusual experience of seeing and in some cases of talking with prisoners of war, for the survivors of the Spanish fleet sunk at Cuba were confined in the Yard. Later we enjoyed the blowing up of Henderson's Point, the largest blast ever exploded up to that time, more than forty-three tons of dynamite being used. At Portsmouth, we also had the Russian-Japanese Peace Conference, and the removal of dead Spanish prisoners to Spain in a Spanish cruiser."

He is treasurer of the Republican Club of East Orange, a member of the American Society of Naval Engineers, and of the Masonic fraternity. He wrote an article on "Heeling Ships in Marine Engineering." His amusements and hobbies are yachts and billiards.

(His son has taught at Tech.)

HARVEY, FREDERIC HALL III G

Galt, California.

Mining and consulting engineer.

Married, June 26, 1913, Anna Miller Wood.

HARVEY has been a mining and metallurgical engineer at Galt, California, since before 1898. He is one of the prominent engineers of

the Pacific Coast. He is a member of the Pacific-Union, University, and Holluschickie Clubs of San Francisco; the Sutter Club of Sacramento, the Yosemite Club of Stockton, the Metropolitan and Union Clubs of New York, and the Racquet Club of Philadelphia. He is a graduate of the Institute and of the School of Mining at Freiberg; was later a volunteer apprentice at the Carnegie Iron Works; then a Mexican War hero; and finally settled down as representative of the Guggenheim interests on the Pacific Coast. He has a beautiful ranch at Galt.

*HASKELL, SAMUEL STEVENS (1890-91) IV

IT is reported that Samuel Stevens Haskell died in Montreal, Canada, several years ago.

He attended L'Ecole des Beaux Arts, Paris, for five years and won many honors. In 1909 he was practising architecture in New York.

HAWES, GEORGE MASON (1889-92) II

Born, August 2, 1870, Fall River, Massachusetts.

Married, April 5, 1910, Helen H. Hill. Children, George M., Jr., Helen Hill.

Home, Los Angeles Country Club, Beverly Hills, California.

"SINCE leaving Tech, I have been in such a varied line of industry that it would be rather dry reading, having been located in so many places. Fall River, (Massachusetts), Kansas City, (Missouri), Pasadena, (California), Los Angeles, (California), Providence, (Rhode Island). My position in Kansas City carried me into almost unknown parts of this country and Western Mexico. Travelling into inaccessible mining camps on the 'hurricane deck of a mule' would be dry reading.

"It would have taken a private secretary to record my wanderings from 1892 to 1923, and he would have writers' cramp by this time.

"In the past war period, I was among the aged and infirm; one of the Home Guards of Pasadena, (California). This was to scare off the Mexicans on our border.

"I can't get your No. 12 on first page of questionnaire, as my son is only five and one-half now and my daughter is one and one-half years now.

"Where do you get the Grandfather stuff in one so young as the Class of 1893? I have not seen an old man among them yet.

"Ask my old classmate, George Barrows, about this grandfather stuff.

"My best wishes to you all."

Hawes is a member of the Knights Templars, 32d degree Masons and Shrine.

HAWKINS, WILLIAM ROBERT (1889-91) II

HAWLEY, JOHN CHURCH (1889-91) V

901 Grosvenor Building, Providence, Rhode Island.
Engineer, Firemen's Mutual Insurance Company.
Born, November 25, 1871, Malden, Massachusetts.
Married, 1893, Marie Rogers; child, William Chester. Married, 1907, Bessie Lohman Derby; 1920, Mary Oakley.
Home, Providence, Rhode Island.

"ON leaving Tech, I went to Rochester, New York, as chemist for the Eastman Kodak Company until 1897. During that time I was engaged on experimental work and making of sensitive emulsion for plates, films and paper. During this time I developed the process for manufacture of what was put on the market by the Kodak Company as Solio paper. In 1897, I went with the Metropolitan Water and Sewerage Board in Massachusetts, as rodman and instrumentman, doing various kinds of engineering on sewerage and water works, including the building of the high service reservoir in Melrose, Massachusetts. I stayed with them until 1902, when I took the examination as civil engineer for United States Service, and in December, 1902, was sent to the Philippine Islands as supervisor of one of the provinces. At that time the province was governed by a Provincial Board consisting of the Governor, Supervisor and Treasurer, the Supervisor's work consisting of construction of roads, bridges and all public provincial improvements and corresponds very closely to the position of Engineer Officer of the District of Columbia. My experience in the Philippine Islands was very interesting, as it required considerable amount of work to be done with very little funds to do it with and it was, at times, quite a problem to complete projects once started for lack of funds and poor labor. In 1905, I came home on leave of absence for six months, spending a large portion of the time in travelling through China and Japan on my way home. During the summer of that year I decided not to return to the Philippines, and was transferred to the Quartermaster Department, United States Army, as civil engineer and sent to Fort McIn-

tosh, Texas. There I was in charge of installation of sewerage system and the construction of barracks and quarters. In the fall of 1907, I was ordered to Plattsburg Barracks, (New York), and remained there until February, 1911. During my stay there I built various roads and quarters, installed complete lighting system for the post and made a survey of the entire military reservation. From Plattsburg I was ordered to Fort Moultrie, South Carolina, and stayed there until April, 1912. Most of my work there was in connection with harbor improvement and dredging of channel in the Cooper River. In May, 1912, I went with the Associated Factory Mutual Fire Insurance Companies as an inspector, inspecting factories for fire protection, laying out various water systems and other means of protecting factories from burning up. In April, 1918, I was called to Washington as engineer of the Fire Prevention Section of the War Industries Board, to look after the fire protection and fire prevention in factories which were important in the production of war material for the government. This brought me very closely in contact with the aeroplane industry and manufacture and loading of high explosives, in fact all my time, practically, was devoted to these two things and other activities were left to some one else in the section. On October 4, 1918, T. A. Gillespie Company at Morgan, New Jersey, the largest high explosive shell loading plant in the world, caught on fire and as result of fire an explosion, when 84 lives were lost and twenty-one million dollars' worth of government material burned up. Very soon after this time a sub-committee of Military Affairs of the Senate made an investigation of this explosion, and I was called as an expert to sit with the committee during the entire investigation. On the 25th of November, 1918, this section completed its work and I went back to the Associated Factory Mutual Companies to my regular duties. The work with the Fire Prevention Section of the War Industries Board was very interesting and rather difficult in that the War and Navy Departments did not always co-operate in getting proper fire protection put in factories, and it was very difficult to get the various industries to be willing to spend sufficient money to put in this protection with the possibility, as they expressed it, of reducing production while protection was going on. It was considerable satisfaction, however, to know that at the end of the war this section had induced a very large number of mill owners to put in the necessary fire protection in their plants. November 1st, 1919, I left the Inspection Department of the Factory Mutual Companies and came with the Firemen's

Mutual Insurance Company as engineer, located in Detroit, where I now am, and I have charge of this district, which includes several of the central states. I have always felt that my Tech training fitted me for anything which I have undertaken, and without it I would not have been able to occupy the positions that I have. I have had very little contact with Tech men since I left the Institute except for a few years when I lived in Boston, when I used to see and be with members of the various classes most of the time. I am a member of the Detroit Branch of the Tech Alumni Association and pay my dues regularly but have happened to have been out of town at the time of their meetings, and have never been to one. I hope, however, to get to some of them very shortly." On June 1, 1924, Hawley was transferred to the Providence, Rhode Island, office, and is looking forward to attending all the class reunions, hereafter.

He is an associate member, American Society of Civil Engineers; member, Society American Military Engineers; Engineers Club, Boston, M. I. T. Alumni Association, Detroit Technology Association, Oakland Hills Country Club, Detroit, and the Masonic fraternity. For diversion he plays golf or cards.

HAYDEN, CHARLES FRED (1889-90)

*HAYDEN, LEVI CUMMINGS (1889-90)
Died December 22, 1918.

AT the time of his death, Levi C. Hayden was distributor of Mitchell Autos for Southeastern Michigan, located at Tecumseh, Michigan.

HEYWOOD, CHARLES DAVIS (1889-93) II

110 Appleton Street, Holyoke, Massachusetts.
Partner, Steel Fabricating Plant, Walsh Holyoke Steam Boiler Works.
Born, September 8, 1870, Holyoke, Massachusetts.
Married, August 12, 1895, Minnetta Howe Butler. Child, Eleanor. One grandchild.
Home, 254 Oak Street, Holyoke, Massachusetts.

HEYWOOD, previous to his present connections, was in the employ of the Deane Steam Pump Company at Holyoke, Massachusetts, from 1894. He is a member of the Masonic fraternity. His hobby is golf.

HIGHT, FRANCIS WILLIAM (1890-92) IV

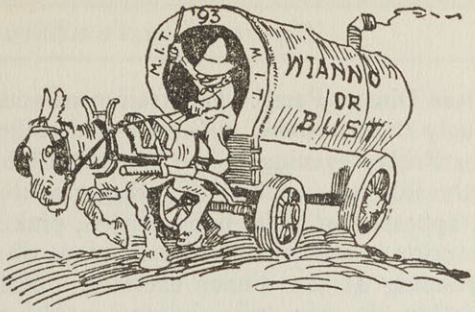
881 Commonwealth Avenue, Boston, Massachusetts.
General Manager, *Youth's Companion.*
Married, June 30, 1897, Louie Mabel Small. Children, Robert Ellsworth, Philip Sylvester.
Home, 19 Cabot Street, Winchester, Massachusetts.

FOR several years after leaving the Institute, Hight did designing; in 1900 he became art manager of the *Youth's Companion* and has been general manager of that publication for several years. He is a director of Perry Mason Company, publishers of the *Youth's Companion.* His hobby is landscape gardening.

HINCKLEY, JOHN FRED X G

345 Central Avenue, Newark, New Jersey.
Chemist, The Mennen Company.
Born, October 13, 1868, Marlboro, Massachusetts.
Married, August 26, 1897, Florence DeLacour Dietz (deceased). Children, Alfred Dexter, 2 deceased.
Married, June 14, 1907, Mrs. Emilie Louise Lodge.
Home, 9 Pierson Place, Montclair, New Jersey.

ON leaving the Institute he was for nine months overseer of the aniline black department of the Silver Spring Bleaching & Dyeing Company, Providence, R. I., carrying on experiments which much improved the aniline black goods on the market. The next four years he was overseer of the glycerine plant, and chemist, for the soap works of Christopher Lipps Co., Baltimore, Md., where he was engaged in the manufacture of crude and the distillation of refined glycerine. From 1898 to 1903 he was chemist for B. T. Babbitt, soap manufacturer of New York City, where his work was similar to that in Baltimore, Md., and where he erected a plant for the bleaching of oils. From 1904 to 1915 he was with Jones Bros. Grand Union Tea Company, of Brooklyn, as chemist, his work being principally on soaps, glycerine and the chemistry of foods, including baking powder, extracts and essences, spices, cocoa and chocolate. He was also buyer for the firm in the cocoa and chocolate and the baking powder ingredients departments. From 1915 to date, chemist, with the Mennen Company at Newark, New Jersey. He originated and still manufactures Mennen Shaving Cream of "Jim Henry" fame. He says he never could have accomplished what he has done without his Tech training. During the war, he made



1893 THIRTIETH REUNION 1923

LADIES present for the first time—the record-breaking attendance—the class gift to the Institute of one hundred thousand dollars for dormitory purposes—these are the outstanding features of the Thirtieth Reunion, the most successful event in the annals of '93. Seventy-one men of the class and forty ladies took part in the class celebration at the Wianno Club, on the south shore of Cape Cod, on Friday, Saturday and Sunday, the 8th, 9th and 10th of June. On Monday, June 11, the class was largely represented at the Inauguration of President Stratton, who has honored '93 by acceptance of honorary class membership voted him at his first meeting with the Class on the 10th of March. The four days' festivities were brought to a close by participation in the Tech Night Pop Concert Monday evening.

At noon on Friday, members of the Class and their ladies gathered at the Algonquin Club in Boston, where they were the luncheon guests of the President of the class, Francis Wright Fabyan. At one-thirty the party started by automobiles for Cape Cod. On the way, a stop was made at the old Governor Winslow mansion in Marshfield, which dates from 1699, a colonial house of much historic interest, where tea was served through the courtesy of Henry Morss. At Plymouth a second stop was made to view the handiwork of our classmate, Roy Beattie, the "Founder of Plymouth Rock," for it was he who, for the Tercentenary celebration in 1920, found this famous stone in its unguarded state upon the beach, founded it in its present permanent setting, and built the handsome canopy which now guards the famous Pilgrim shrine. The Wianno Club, the headquarters of the celebration, was reached about six o'clock, after a journey of eighty-five miles from Boston.

the laboratory experiments and helped manufacture gas paste and anti-dimming compound. Hinckley has delivered papers before the Chemists' Club and has written articles for the International Correspondence Schools of Scranton, Pa. He is a member of the American Chemical Society, New Jersey Chemical Society, Knights of Pythias, Junior Order of United American Mechanics, and Modern Woodmen of America.

In the theatre, dancing and musicals he finds recreation.

He has this to say of two of his classmates:

"W. V. Brown is clerk of the Community Church (John Haynes Holmes) of 34th Street, New York City.

"P. H. Thomas was seen taking up the collection at Unity Forum (Unitarian Church) last Sunday evening, November 19, when the Turkey-Greece situation was the subject under discussion.

"Who will now be able to say that the enactment of the Prohibition Act was a failure?"

HIRST, PHILIP LESLIE (1890-91) VI
Address now unknown; in 1909, his address was Lascelles Hall, Huddersfield, England.

*HODGKINS, WILLIAM W. (1889-90)
Died April 19, 1896.

HOLMES, ALEXANDER; A.B. (1890-91) IV
Kingston, Massachusetts.

HOLMES has been following agriculture at Kingston, Massachusetts, for several years.

HOLMES, EDWARD JACKSON; A.B., LL.B. (1890-91) VIII
53 State Street, Boston, Massachusetts.
Attorney at Law—Trustee.
Born, January 3, 1873, Boston, Massachusetts.
Married, July 8, 1897, Mary Stacy Beaman.
Home, 296 Beacon Street, Boston, Massachusetts.

HOLMES was graduated from Harvard College with the degree of A.B. in 1895. He then made a tour of the world, after which he entered the Harvard Law School, receiving his degree of LL.B. in 1899. Since then he has practised law in Boston.

During the War he was a member of Legal Advisory Board,

No. 8; served on committee for Liberty Loan drives; and was on active duty as member of the First Motor Corps, M. S. G., during the police strike.

He writes:

"Have had the honor of serving as one of the three representatives of Tech on the Board of Trustees of the Boston Museum of Fine Arts from 1910 to date, and as a member of the Executive Committee of the Museum for the last three years. This honor I deeply appreciate.

"I believe that as time goes on the collections in this Museum will have continually increasing value not only as sources of interest to the general public but as sources of inspiration to designers in our cotton, woolen and silk mills as well as to architects, painters and sculptors."

He is a member, Boston Bar Association, (Massachusetts Bar Association); trustee, Museum of Fine Arts; member, Union, Somerset, Boston City, Harvard Club of Boston and of New York, Eastern Asiatic Society.

HOLMES, FRANK BLACKWELL (1889-90)
Married, April 26, 1899.
85 Montview Street, West Roxbury, Massachusetts.

HOLMES was in the shoe manufacturing business for many years.

HOOPER, GEORGE MITCHELL (1889-90)
39 Chester Road, Belmont, Massachusetts.

HOPEWELL, CHARLES FREDERICK VI G '94
19 Brook Street, Watertown, Massachusetts.
Managing Partner of Hopewell Brothers.
Born, June 1, 1872, Boston, Massachusetts.
Married, April 17, 1915, Vera E. Stiebel.
Home, 152 Russell Avenue, Watertown, Massachusetts.

AFTER leaving the Institute, Hopewell travelled for a while and then spent the winter making boiler tests at Sanford, Me. In May, 1895, he entered the employ of the Stanley Electric Manufacturing Co., at Pittsfield, and remained with them in their generating department until September, 1895, when he became inspector of wires and superintendent of lights for the city of Cambridge, both of which depart-

ments were merged into one in 1899 and his title was then changed to city electrician. He resigned his municipal business in 1903 and for three years did experimental work on gas engines, maintaining a machine shop for that purpose. From 1906 to date, of Hopewell Brothers, manufacturers of automobile specialties. He is a director of the Samson Electric Company of Canton, Massachusetts. He was chairman of the Watertown Alumni for raising the Tech fund.

During the war he served on many local committees and maintained an experimental carbureter laboratory. Furnished some data to the Bureau of Standards on carbureters and also trained some of the Aviation Engineers at Tech on dynamometer engine testing at the Laboratory.

"Have maintained a dynamometer plant and an engineer and assistant since 1917 trying to develop a carbureter for automotive engines. Have already been able to get 21 miles per gallon on a Hudson Car. Carbureter is radically different from any now on the market, and I hope to have it in a commercialized form this year.

"Am now playing with wireless for pastime.

"Have taken many Golf lessons but the Golf Serum does not seem to take effect. My real pleasure is in reading and having friends visit me at a summer camp."

Hopewell has delivered many addresses before technical conventions and societies. He is a member of the American Institute of Electrical Engineers, Society of Automotive Engineers; Engineers Club, Oakley Golf Club, M.I.T. Faculty Club, Unitarian Club and Y.M.C.A.

HOUCK, WILLIAM GABRIEL I G

166 Dart Street, Buffalo, New York.
President, Buffalo Structural Steel Company.
Born, November 27, 1871.
Married, May 14, 1903, Julie Emilia Geyer (deceased). Children, Julie Winifred, William G., Jr. Married, July 24, 1923, Isabel Berrick.
Home, 551 Lafayette Avenue, Buffalo, New York.

HOUCK writes:—"At graduation, became a draftsman with Buffalo Bridge and Iron Works. Lost the job in November, 1893—idle until May, 1895, when I became a draftsman with Buffalo Structural Steel

Company. Went with Bureau of Buildings, City of Buffalo, as iron inspector in August, 1895—became structural engineer in the bureau a year after and in February, 1899, became secretary-treasurer of the Buffalo Structural Steel Company. Became president of the company in 1906, which position I still hold. I have enjoyed my work up to the present time; we try to turn out good steel work for buildings and other structures, give everybody a square deal and are sailing along on an even keel.

"During the war we fabricated a large tonnage of steel for the parts of ships which were taken to Newark, New Jersey, and assembled into the finished ship with other parts fabricated by other steel companies. One of the ships was christened the *'Buffalo Bridge'* by my daughter. She used a bottle of real champagne for the purpose; where they got it I do not know. This boat work was done for the Submarine Boat Corporation.

"I have not met many '93 men since graduation. Gorham lives in Buffalo. I see him occasionally at our meetings of the local Tech Society. Also saw the boys at the dedication of the New Technology and once previously in Boston at a class reunion."

He is a director of the Buffalo Chamber of Commerce, the Rotary Club and the Buffalo Canoe Club. He is a member of the Engineer's Society of Buffalo, the Buffalo Club, Park Club, Wanakah Club, Buffalo Athletic Club, and the Masonic fraternity.

His hobbies are automobiling and horticulture.

HOUGHTON, FRANK (1889-90)

Retired.
Born, May 31, 1872, Boston, Massachusetts.
Home, 30 Perrin Street, Boston, Massachusetts.
Unmarried.

HOUGHTON entered the National Exchange Bank, Boston, in June, 1891, and held the position of cashier at the time the Bank was absorbed by the National Shawmut Bank in 1907. While with the National Shawmut Bank he held the positions of assistant cashier, secretary and trust officer; and with the Shawmut Corporation of Boston of treasurer and secretary. Early in 1924, he retired from business.

He is trustee of the Eliot Savings Bank and of the Roxbury Home for Aged Women.

*HOUGHTON, HERBERT ALLEN (1888-91) II
Deceased (date unknown, probably in 1909).

IN 1898, Houghton was a draftsman in the Stanley Laboratory at Pittsfield, Massachusetts.

HOUPT, HARRY STERLING (1889-91) IV
1842 Broadway, New York City.
Hudson Motor Car Company of New York.

HOUPT has been in the automobile business in New York for a good many years.

HOWE, JOSIAH WILDER (1889-92) I
Address now unknown.

IN 1909, was with the New York Branch of Marshall Field Company of Chicago.

*HOWLAND, FREDERICK HOPPIN IX G

FREDERICK HOPPIN HOWLAND, who was graduated with the Class in Course IX (General Studies), died at Philadelphia on June 4, 1916. He was widely known as a journalist and as war correspondent in South Africa during the Boer War. The following notice of Fred Howland's death was taken from the Boston *Evening Transcript* of June 5, 1916:

Frederick Hoppin Howland, a journalist, whose death in Philadelphia is announced, was born in New Bedford, on Jan. 10, 1871, the son of Richard Smith Howland and Mary Hoppin Howland. He received his education at St. Matthew's School at San Mateo, Cal., in part, and in Providence, R. I., and at the Massachusetts Institute of Technology, where he was graduated in 1893. He previously had travelled abroad. He went after graduation from Technology to the Providence *Journal* and later became Washington correspondent for that paper, and afterward its New York representative.

Perhaps the most eventful part of Mr. Howland's career was as war correspondent for the London *Daily Mail,* the London *Evening News* and the Providence *Journal* in South Africa in 1900. There he followed the columns of General Hunter, Lord Methuen and General Broadwood. On his return from Africa he resumed his Washington work for the Providence *Journal,* of which he eventually be-

came treasurer and manager, and he was later editor and part owner of the Providence *Tribune*.

After further travel abroad and in Cuba, where he was interested for a time in fruit growing, Mr. Howland took charge of the publication department of the Boston Chamber of Commerce, and was editor of the Chamber of Commerce *Journal*. In 1910, he joined the staff of the Philadelphia *Press*, and a year later became an associate editor. He had remained there ever since. He belonged to several clubs. In April, 1901, Mr. Howland married Ellen Swan Dobbin of Baltimore, Md. They had two daughters, Mary Hoppin and Elizabeth Key.

HOYT, CHARLES HENRY (1889-92) II

93 Richmond Street, Beverly, Massachusetts.
Inventor, United Shoe Machinery Corporation.

HUNT, MYRON (1891-92) IV

1107 Hibernian Building, Los Angeles, California.
Architect under firm name of Myron Hunt, Architect, H. C. Chambers, Junior Partner.
Born, February 27, 1868, at Sunderland, Massachusetts.
Married, May 30, 1893, Harriette Boardman (deceased); 1915, Virginia Pease. Children, William Montague (deceased), Charles, Harriet, Hubbard, Robert.
Home, 200 North Grand Avenue, Pasadena, California.

HUNT is one of the best known architects in California. He was a student at Northwestern University, Chicago, 1888-92; in Boston and Chicago architect's offices 1892-94; in Europe, 1894-96. He then practised in Chicago for five years, removing to Los Angeles in 1903; in partnership with Elmer Gray for the five years to 1908; alone, 1908 to 1920, since which time he has been in partnership with H. C. Chambers, the firm name being Myron Hunt, Architect. He was architect for Occidental College, Los Angeles, and three other college groups; First Congregational Church, Riverside; County National Bank, Santa Barbara; Los Angeles Ambassador and six other hotels; Pasadena and Ontario hospitals; many residences, including the landscape architecture.

During the war, he was assistant field representative of the Emergency Fleet Corporation; chairman, Finance Committee, War Camp Community Service; Captain American Protective League.

He is a trustee, Polytechnic Elementary School, Pasadena; member, California State Board of Architecture; fellow, American Institute of Architects; member, Sigma Chi fraternity. He is a member, University Clubs (Los Angeles and Santa Barbara); Valley Hunt, Overland, Flintridge (Pasadena); California and Ambassador Golf Clubs (Los Angeles). His amusements are golf and sea fishing.

HUNT, WILLIAM FRANCIS (1890-91)

Assistant Superintendent, Metropolitan Park Commission.
149 Pond Street, Stoneham, Massachusetts.
Married, October 21, 1896, Lilian Imogene Skinner. Children, Norman Francis, Donald Ross.

FROM 1891 to 1897 he was assistant to A. H. French and French & Bryant, during which time he was in charge of the underdrainage of Soldiers Field for Harvard College, the topographical survey of the Fresh Pond Reservation, and the triangulation and topographical survey of the Middlesex Fells Reservation of the Metropolitan Park System. From 1897 to 1899 he was employed on the Melrose sewer system, and for a time was in private business. In January, 1900, he was made first assistant engineer of the public works department for the city of Melrose, in charge of the engineering division, a position which he held until the fall of 1902, when he again became assistant engineer of French & Bryant. From 1903 to 1905 he was resident engineer for that firm on the building of the summer home and estate of H. M. Atkinson, of Atlanta, Georgia, at North Hatley, Province of Quebec, Canada. In 1905 he entered the employ of Guy Lowell, architect, and for two years was engaged upon landscape architectural work on a large estate in New York City overlooking the Hudson River. In 1909 he was in charge of the sewer construction at Norwood, Massachusetts, for the Sewer Commissioner. He was a student at Tufts' Engineering School, 1888-1889.

IGLESIAS, EUGENIO TOMAS (1888-93) VI

San Juan, Porto Rico.
Chief Clerk, Department of Labor, Charities and Correction.

JACKSON, DANIEL DANA; M.S., D.S. V G

Room 312 Havemeyer Hall, Columbia University, New York City.

Professor and Executive Officer, Department of Chemical Engineering, School of Mines, Engineering and Chemistry, Columbia University; Member of the University Council and the Committee on Instruction.

Born, August 1, 1870, Gloucester, Massachusetts.

Married, November 26, 1902, Ella Howard Phillips. Children, Daniel Dana, Jr., Elizabeth.

Home, 930 President Street, Brooklyn, New York.

HE was chemist with the Boston Water Department and instructor at the Institute, 1893-95; biologist, Massachusetts State Board of Health, student at the Harvard Medical School and bacteriologist, Worcester Department of Sewers, 1895-97; chemist, Brooklyn Water Works, 1897-99; director, Municipal Laboratories, department water, gas and electricity, New York City, 1899-1913; consulting engineer for the City of Cleveland, 1912; consulting engineer for New York Sewer Plan, vice-president of Leavitt, Jackson Engineering Company, assistant professor of civil engineering at Columbia University, technical manager of the Permutit Company, 1914-1916; associate professor of chemical engineering at Columbia University, 1916-1917. Since 1917 Jackson has been professor and executive head of the Department of Chemical Engineering, School of Mines, Engineering and Chemistry at Columbia University, member of the University Council and the faculties of Pure and Applied Science, as well as consulting chemical engineer for numerous industrial companies. In 1908 he received the degree of M.S. from New York University. At the Charter Day exercises of the University of Pittsburgh, on February 20, 1924, Jackson was awarded the honorary degree of Doctor of Science. He has visited many factories in England, France and Germany, as well as in this country, and has done much legal expert work on patents and processes in Industrial and Applied Colloid Chemistry and in Water Supply and Drainage. He has written about fifty articles on chemistry, bacteriology and sanitation and delivered lectures at numerous universities on these subjects. His Civilian War Record is as follows:

Dean, School Military Photography, Signal Corps; member of Committee, Military Training Camps Association; member of

Committee on Water Supply, Council of National Defense; member of Staff School of Explosives, Ordnance Department; member of Special Committee of Three appointed by the Secretary of War delegated to visit and report on War Camps. He was cited for conspicuous civilian service.

He is Fellow of the American Association for the Advancement of Science and of the Society of American Bacteriologists; a member of the American Chemical Society, the Society of Chemical Industry, the Société de Chemie Industrielle, The American Public Health Association; the American Water Works Association; the Chemists Club, the Ryden Country Club, the North Forks Country Club, and Sigma Xi, Phi Lambda Upsilon and Tau Beta Pi.

Golf and boating are his relaxations.

JACKSON, OLIVER HOWARD; M.D. (1889-91) III

84 North Main Street, Fall River, Massachusetts.

Physician.

AFTER leaving the Institute Jackson was a student at the Long Island College Hospital Medical School, Brooklyn, New York, from 1891 to 1894. He has been a physician in Fall River, Massachusetts, for many years.

JACKSON, WILLIAM DUNHAM (1891-93) VIII

Teacher, State Normal School, Bridgewater, Massachusetts.

Born, May 4, 1858, Halifax, Massachusetts.

Married, August 24, 1887, Mary V. Morse. Children, Dunham, Elizabeth.

Home, 74 Mount Prospect Street, Bridgewater, Massachusetts.

FROM 1891 to 1893, Jackson was a special student, taking Saturday laboratory courses. He was in his present position when he enrolled at the Institute and has never changed. He has given a good deal of time to civic affairs. He is director and vice-president of the Bridgewater Co-operative Bank, trustee and president of Bridgewater Savings Bank, and has held various town offices, such as selectman, member of school committee, library trustee, and others. He assisted in Liberty Loan and Red Cross drives during the War. He is a member of several educational associations, and has given addresses at various times upon educational subjects. He believes he gained in clearness of thinking and accuracy of work by his Tech training, and he adds that he "has always prized his very slight

connection with the Institute," and he esteems "it a privilege to be counted in the Class of '93, if the regular members will not regard it as an unwarrantable intrusion."

He belongs to the Class of '93 Grandfather Club — one granddaughter.

*JAMES, LAWRENCE STEARNS V G
Died September 27, 1920.

IN September, 1893, James entered the employ of the Commonwealth of Massachusetts, Board of Gas and Electric Light Commissioners, remaining with that Commission until a dozen or more years ago, when illness compelled him to resign.

JAMESON, ARTHUR HUGH (1890-93) V G
Deemer Steel Casting Company, New Castle, Delaware.
Born, November 9, 1870, Boston, Massachusetts.
Married, January 28, 1902, Rebecca Jameson (deceased). Children, John Denison, Lois, Thomas Hugh, Patricia, Arthur Gregory.
Home, 1150 Evergreen Avenue, Plainfield, New Jersey.

BEFORE entering the Institute he studied at Harvard University (1888-1890). Immediately after graduating from the Institute he was assistant chemist for the Colorado Fuel and Iron Company at Pueblo, Colorado. During the latter part of 1893 he worked at the Institute in Professor Craft's private laboratory and assisted in teaching chemistry to the Normal School of Gymnastics. For the next five years he was chemist of the Cleveland Linseed Oil Company, South Chicago, Illinois; when that company went into the American Linseed Company (the trust) he remained as chemist for a few months.

In September, 1899, he went to Phoenixville, Pennsylvania, as secretary of the Logan Manufacturing Company. In May, 1901, he became manager of the Cornell-Andrews Smelting Company at Attleboro, Massachusetts. Then for a year or more he was superintendent of the Providence Steel Castings Company. In April, 1906, he became manager of the Steel Department, Malleable Iron Fittings Company at Branford, Connecticut, remaining in that position until in January, 1918, he was made vice-president and general manager of the Bayonne Steel Casting Company at Bayonne, New Jersey.

"Fancy Dress Dinner Party. Entertainment and dancing later. Any costume, ugly or handsome, ludicrous or dignified"—thus read the program for Friday evening at the Wianno Club, and the program was strictly adhered to. Fabyan, who measures six feet four or thereabouts, appeared in white baby clothes, pink sash and baby bonnet, with a rattle which served him in place of the customary gavel while presiding at the dinner exercises. Robin Hood and Maid Marian, in Lincoln green, were impersonated by Mr. and Mrs. Biscoe. Farwell Bemis as an Indian rajah and Mrs. Bemis as an Indian princess wore wonderful silk costumes which were genuinely oriental. J. B. Blair and Mrs. Blair were most attractive Spanish dancers. Billy Houck in overalls, jumper and cap, no two of which garments matched or harmonized, and with flaming scarlet socks, looked the part of a locomotive fireman. Jack Hawley, in crimson silk shirt and bloomers, which he brought from the Philippines, exemplified a native Filipino. And so on through the list, a recital for which we have not space. The silver cups offered for the two best costumes were won by Mrs. Biscoe and Farwell Bemis.

During the Friday evening dinner, President Fabyan appropriately welcomed the ladies who, for the first time, participated in a class reunion, and in behalf of the ladies the class committee presented to each one a favor consisting of a silver needle case. Mrs. Edmund E. Blake, herself a Tech woman (Clara E. Shepard, '95), graciously replied in behalf of the ladies, and Ramsey Speer responded as of old to the toast "The Ladies." George Glidden, as chairman of the Reunion Committee, presented to the men briar pipes marked "93" in silver inlay, together with tobacco pouches and "the makings," all of which were the thoughtful and appreciated donation of President Fabyan. A silver cup was presented to Mr. and Mrs. Charles V. Allen who, coming from the City of Mexico (solely for the celebration), had covered the greatest distance to attend the reunion. In point of distance travelled, however, J. E. Woodbridge from San Francisco was a close second.

After the dinner the party (or those who needed it) were initiated into the mysteries of roulette, each person being given $500.00 in stage money for the play, and for an hour excitement was intense around the three wheels. Dancing until midnight concluded the Friday evening festivities.

Saturday morning brought a drizzling rain which reduced materially the number of entrants in the golf tournament. Of those who started, about a dozen played the full eighteen holes, and the

During the war he was chairman of a committee to ascertain for the government the costs of steel castings used to establish fair prices; and 90 per cent of the output of his plant went into use by the Navy or the Emergency Fleet.

He is a member, American Institute of Mining and Metallurgical Engineers, American Society for Testing Materials and American Foundryman's Association; Delta Upsilon fraternity and the Harvard Club of New York.

Mountain climbing, cruising and tennis are his amusements and hobbies.

JOHNSON, CHARLES HERBERT I G '94

Box 215, Sarasota, Florida.

County Surveyor, Sarasota County, Engineer in Charge Municipal Recreation Pier, Professional Engineer.

Born, June 10, 1872, West Roxbury, Massachusetts.

Married, December 22, 1907, Clara M. Lindberg (deceased); July 16, 1916, A. V. Marron. Children, Carl Erik, Yvonne, John Oscar.

Home, Box 215, Sarasota, Florida, House at Red Rock, 3 miles south of Sarasota.

"My first job on leaving Tech was running transit for John H. Rice on house lot surveys in Boston, then I loafed a while and in October went to work for the Massachusetts Highway Commission, Resident Engineer at Walpole, Massachusetts. The work froze up in January, 1895, and I was out of work until May, then went in the Highway Commission office and in August to Lexington, (Massachusetts), as Resident Engineer. Laid off the last of December. That is one reason I like Florida and Cuba better than New England, no winter stoppage of construction work. March 30, 1896, went to work on Section 6, Boston Subway, and gained much valuable experience in tunnel and shield work. Laid off for lack of work in September, 1897, and went to work for Frank B. Gilbreth, estimating buildings, etc. Left him in May, 1898, to go on Coast Guard duty with the First Corps of Cadets, M. V. M., of which Corps I was an active member for nearly ten years. After returning from camp was with Yates & Triest on Fort Andrews, Peddocks Island, Boston Harbor, for a short time, then went to Concord as inspector on a sewer job for Leonard Metcalf ('92). Frozen out again and jobs scarce, put in most of the winter playing the stock market, did not lose much money and learned a

lot which has been of use to me in the last few years. In July, 1899, went to work as timekeeper, sub-foreman, etc., on the Blue Hills Parkway, Mattapan, (Massachusetts), for Bell and Company, Contractors. In January, 1900, went into the sand and broken stone business as engineer for the Old Colony Sand & Stone Company with a sand pit at Avon, (Massachusetts), and a quarry at North Stoughton, (Massachusetts). Forced out of business in 1903 by high freight rates and lack of capital. Went to work in March, 1903, with the W. A. Murtfeldt Company, concrete contractors, as outside superintendent. In the same year passed the examination of Junior Engineer with the War Department, but did not like the positions offered and stayed with the Murtfeldts until March, 1907, when I went to the Jamestown Exposition at the request of Ralph Whitman ('00), now a Commander in the Navy Civil Engineer Corps.

"While at the Jamestown Exposition, built a concrete relief map of the Panama Canal Zone, 120 feet by 60 feet in plan, with the vertical scale six times the horizontal. After completing the map spent the rest of the Exposition period in lecturing on it, and incidentally cultivating the acquaintance of the young lady whom I married in December at Washington, Miss Clara M. Lindberg of Elgin, (Nebraska), who was also working at the Exposition.

"While at the Exposition I took and passed the examination for Civil Engineer and Superintendent of Construction in the Quartermaster's Department at Large, United States Army, quite a title for a $1500 a year job.

"From the Exposition and Washington went to Boston but soon got word I had been appointed Civil Engineer, etc., at Fort Dade, Defences of Tampa Bay, (Florida), and on January 25, 1908, left New York on the old Clyde Line *Huron* south bound. Landed in Jacksonville on a beautiful warm summer day and made up my mind right then and there that Florida was the place for me.

"Was at Fort Dade for practically three and a half years, mostly on inspection of nearly all classes of construction work, but doing a little design. While at Fort Dade had a son, William Algar, who died at the age of seven months.

"From Fort Dade went to the United States Naval Station Guantanamo Bay at the request of Ralph Whitman ('00) who had been given charge of the construction of the new Naval Station there. We struck into a lot of thorny scrub which had never been

touched since the discovery of Cuba and built wharves, shops, oil tanks, pipe lines, quarters, sewer and water systems and a new radio station. All but two of the wharves, the oil tanks and the radio were built by day labor. I was general superintendent and had at times as high as four hundred men on the pay roll. Nearly all the labor, West Indian negroes or Spaniards with some Chinamen and East Indians. The work was very interesting as the plant had to a great extent to be improvised and the things which were wanted first usually came last.

"In June, 1914, my wife was taken with consumption and the doctor ordered her to the States in the hope of saving her life. I left the Naval Station in the middle of the construction of a marine railway and came to the States, August 1, 1914, first going to Nebraska, where my wife was staying, then bringing her to our farm here. From that time until March, 1916, I stayed here, trying to farm and taking care of my wife, who died in January, 1916.

"In March, 1916, I went back to the Naval Station, taking my little boy with me, and finished up the marine railway I left nearly two years before. Remained at the Naval Station from March, 1916, to May, 1922, when I left the Government service and returned to Sarasota, as I was tired of the Navy and there was very little work in sight at the Naval Station.

"Since I came home have obtained the engineering work on the new $60,000 Municipal Recreation Pier, have been elected County Surveyor of Sarasota County for the next two years, have furnished plans for a wooden drawbridge and have more or less survey work always on hand.

"Was married July 16, 1916, at the American Consulate, Santiago de Cuba, to Miss A. V. Marron of Carrabelle, (Florida).

"Do not know that I have accomplished very much except that I have a fine family, have always paid my bills, have never built anything that fell down, and have managed to accumulate enough property so that my family would have enough to live on if I died.

"While at the Naval Station the last time, my work was mainly wooden buildings, concrete tanks, pile wharves and road work. Made some very interesting trips into the hills to put up towers for range finder calibration and made several trips to Navassa Island, 90 miles south of Guantanamo. We put up a small radio station on Navassa.

"Having been out of the world so much have met practically

no Tech men and as I remember it none of my own class since 1907."

While in Boston, Johnson served nine and a half years with the First Corps of Cadets, M.V.M. He is a member, Association First Corps of Cadets, M.V.M.; Braidentown Lodge No. 99 F. & A.M., Manatee River Chapter No. 18 R.A.M., National Geographic Society, American Geographical Society, American Asiatic Association. His amusements and hobbies are boating and farming.

*JONES, STEPHEN EDWARD, JR. (1889-91) II
Deceased.

STEPHEN EDWARD JONES, JR., entered the real estate business in 1893, and was a real estate broker in Louisville, Kentucky, for several years before his death.

JOY, HARRY WIGGIN (1889-90)
2606 Emerson Avenue, S., Minneapolis, Minnesota.
Cashier.

KATO, GODFREY EUJIRO (1890-92) VI
1015 Uchihama-Machi, Ichome, Moji, Japan.
Proprietor, Toyo Shokai (The Oriental Trading Company).
Born, October 10, 1856, Kumamoto Ken, Kiushu.
Married, September 15, 1897, Kyo Yamaoka. Children, Kiyo-o, Shige-o.
Home, 218 Ichome, Kuzuhacho, Moji, Japan.

HE was professor of mathematics, Doshisha College, Kyoto, 1880-86; professor of mathematics, history and political economy, Government Normal School, Maebashi, Gumma-ken, 1886-88; professor of physics and mathematics, Harris School of Science, Doshisha, Kyoto, 1888-90; was a student at the Institute from 1890-92. Upon leaving Tech he spent one year with the Thompson Houston Electric Company, taking a student course there. Returning to Japan he resumed the chair of physics in the Harris School of Science for a short time, at the same time working at the design of Kyoto Electric Tramway (1894). He next designed the electric tramway between Osaka and Kobe. In 1895 he became chief engineer of the Suirijimusho, Kyoto (the municipal hydro-electric plant), which position he held for a number of years. He has also

served as inspector for the local government on steam engines and boilers.

He is now proprietor of the Toyo Shokai (The Oriental Trading Company) at Moji.

He was a student at the Kumamoto English School from 1872 to 1876, and of the Doshisha College, Kyoto, from 1876 to 1879. He is a member of the Institute of Engineers, the Institute of Electrical Engineers and the fraternity B.J.M., all of Japan, Denki-Kiokai (of electrical engineers).

KEITH, SIMEON CURTIS VII G

72 South Market Street, Boston, Massachusetts.

Vice-President, H. J. Keith Company; Secretary, The Amos Bird Company.

Born, July 10, 1871, East Bridgewater, Massachusetts.

Married, August 5, 1895, Annie C. O'Brien. Children, Dorothy Sherman, S. Curtis, Jr., Grace Warrington, Monica.

Home, 138 Lancaster Terrace, Brookline, Massachusetts.

FOR two years after graduation Keith was assistant in biology at the Institute, and an instructor the following year. During the summer of 1894 he studied fermentation industries at Copenhagen, Denmark. From 1896 to 1898, he was engaged in the manufacture of butter cultures. The next ten years he was engaged in dairy chemistry and bacteriology with H. P. Hood & Sons, Charlestown, besides carrying on a butter culture business. In April, 1908, he opened an office in Boston as a bio-chemical engineer. Some years ago he gave up private practice to enter the firm of H. J. Keith Company, of which he is vice-president, and he is also secretary to The Amos Bird Company. This latter company conducts an American Egg Products Factory in Shanghai, which is one of the largest American industrial enterprises in Shanghai. The factory buildings are equipped with the best modern machinery and the welfare of the employees is carefully guarded. It reflects much credit upon American industrial methods.

Keith has made trips to China in the interests of the business and en route enjoyed the hospitality of our classmate Maki at his home in Japan. Keith has written "Effect of Freezing on the Viability of Bacteria," the results of research work at M.I.T. He was lecturer at the Institute from 1914-1920 on food preservation in the department of Biology and Public Health.

He is a member of the American Association for the Advance-

ment of Science, the American Public Health Association, the American Society of Naturalists, and the Exchange Club of Boston. His amusements and hobbies are gardening, radiophone and photography.

KENDALL, ALBERT LINCOLN II G '94

184 High Street, Boston, Massachusetts.

Engineer and Special Inspector, Factory Mutual Fire Insurance Companies.

Born, March 16, 1869, Framingham, Massachusetts.

Home, 43 Adams Road, Framingham Centre, Massachusetts.

STILL living in his old home when not travelling, and still unmarried, Kendall writes of himself:

"Upon graduation I entered the employ of the Inspection Department of the Factory Mutual Fire Insurance Companies, where I worked during the vacation of 1893, and a portion of 1892, starting in as surveyor and draftsman. I later became head draftsman, regular inspector and engineer and special inspector, my present position.

"Except for the travelling incident to the work, I have always been located in Boston at 31 Milk Street, up to a few months ago, when our offices were removed to the present location, 184 High Street.

"Partly perhaps on account of the large amount of travelling which I have had, I have never held any public or quasi-public office.

"I first enlisted in the 2nd Company, Coast Artillery Corps, Massachusetts Volunteer Militia, on May 21, 1900, and had continuous service in the Massachusetts Coast Artillery up to July 25, 1917, when our organization was called into the United States service.

"I entered the service as Captain of the 2nd Company, Massachusetts Coast Artillery, the designation of which was later changed to the 17th Company, Boston, Coast Artillery Corps. I was stationed at Fort Revere, Boston Harbor, from July 28, 1917, to May 31, 1918, when I was ordered to Fort Munroe, to take the Officer's course in Heavy Artillery.

"Returning from Fort Munroe, I was transferred to Headquarters, Coast Artillery Corps, Coast Defences of Boston, and was stationed at Fort Warren as Fort Commander. This was a Field Officer's position and during the summer I was recommended

by the Coast Defence Commander for promotion to Major, but the promotion did not come through.

"On October 17th I was assigned to the 33rd Regiment, Heavy Artillery, Coast Artillery Corps, as Captain of Battery-B. The regiment left Boston Harbor for Camp Eustis, (Virginia), on October 29, 1918, fully organized except for a few specialists who were to join us from the schools at Fort Munroe. At Camp Eustis, the training center for Heavy Artillery, we had the usual final training and were attached to the 43rd Heavy Artillery Brigade, which was the next organization to leave for overseas.

"The signing of the Armistice on November 11th caused the demobilization of the regiment, and I was discharged on December 23rd, 1918, as Captain, although a second recommendation for my promotion had been sent in from Camp Eustis by the Rating Board and approved by the Regimental Commander.

"In all of my experience during the world war I think the most trying was when we first realized that the units with which we entered the service were to be broken up. In August, 1917, I received orders for the transfer of nineteen men to the 101st ammunition train and ten men to the 101st Field Artillery. This was the start of the breaking up of our organizations, and from that time on it was a case of transferring men to overseas regiments and filling up the companies with green men for training. Several hundred men thus passed through my company.

"I do not recall any noteworthy experiences since I graduated from Tech which would be especially interesting to my classmates. I have benefited in general from my Tech training, although I have not followed a strictly engineering profession.

"I have occasionally met '93 men in my travels, but most of my meetings with them have been in and around Boston at the class reunions and other places. Probably I have seen Jack Logan more frequently than any one man outside the city. His very pleasant home at Bala, just outside of Philadelphia, has been open to me many times and the hospitality has been such that I have always felt free to call him up when in Philadelphia.

"I think the above is a fairly good outline of what I have accomplished since I left Tech. Possibly this can be summed up best when I say that I have managed to keep a pleasant home, keep out of prison and out of debt, with something laid by for a rainy day."

Kendall is a member of the Engineers Club, Boston; Duck

Lake Club, Boston, (Camps in Maine); Framingham Country Club at Framingham, and American Legion. His amusements and hobbies are the movies, cards (the great American game), golf and gardening. He has a keen interest in military affairs.

KENDALL, FAY BRIGHAM; LL.B. (1890-93) VI

24 Milk Street, Boston, Massachusetts.
Lawyer.

AFTER leaving the Institute Kendall took up the study of law at the Boston University Law School, graduating from there in 1897 with the degree of LL.B. Since then he has been engaged in the general practice of law, and has also been instructor in the evening law school of the Y. M. C. A.

KENISON, ERVIN II G

Massachusetts Institute of Technology.
Associate Professor of Drawing and Descriptive Geometry.
Born, June 19, 1868, Charlestown, Massachusetts.
Married, November 27, 1895, Mary A. Barker. Children, Ervin M., Arthur C., Richard W., Gordon S.
Home, 105 Mount Auburn Street, Watertown, Massachusetts.

KENISON has taught mechanical drawing and descriptive geometry at the Institute ever since graduation, as assistant instructor and for some years as associate professor. His war work was in this same line, doing intensive work preparing students for entrance examinations of Engineer Corps. Besides his work in the Institute Kenison has taught in Boston evening schools, Northeastern University, Boston, and Boston University. Three of his sons have attended Tech — a confirmation of his belief in the value of the mental training at the Institute.

He also believes that new dormitories are one of the needs of the New Technology.

He is a member of the National Geographic Society, the American Association of University Professors, and the Society for the Promotion of Engineering Education.

In collaboration with Professor Bradley, he has written a textbook on Descriptive Geometry, Notes on Warped Surfaces and Notes on Mechanical Drawing. Swimming, bowling and tennis are his recreations.

KEYES, FREDERIC HALE II G

334 Fourth Avenue, New York City.
Editor, The Consolidated Textile Catalogues, Published by Bragdon, Lord and Nagle Company, Inc.
Born, April 16, 1871, Newtonville, Massachusetts.
Married, June 27, 1907, Anne Claflin Ellis. Child, Nancy Claflin.
Home, 70 Morningside Drive, New York City.

AFTER graduating from the Institute Keyes held positions as New England representative of the Turner Brass Works of Chicago; pattern maker with the American Tool and Machine Company of Boston; draftsman with J. R. Worcester & Company, Boston; mechanical engineer with Stone & Webster, Boston, for three years; instructor in the Mechanical Engineering Laboratory at the Institute for four and a half years; general manager of the Robb-Mumford Boiler Company, Boston, for six years; consulting engineer in private practice in Boston for two and a half years, and June 1, 1912, became connected with the Sanitary Engineering Company, becoming a director in the company in 1913.

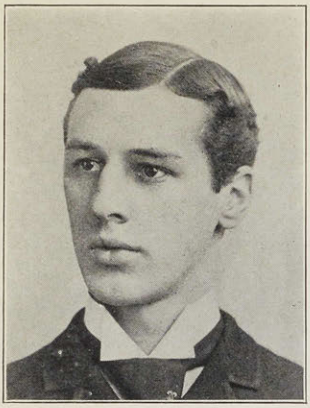
He served on the Massachusetts Board of Boiler Rules for three years, representing the boiler manufacturers.

Since he resigned from the Sanitary Engineering Company, he has been engaged in Editorial work; and located in New York; as editor, Sweet's Catalogue Service, Inc., Architectural and Engineering Editions; editor, Iron Age Catalogue of American Exports; production editor, Chemical Engineering Catalogue; and, his present position, editor, the Consolidated Textile Catalogues. He is a member American Society Mechanical Engineers.

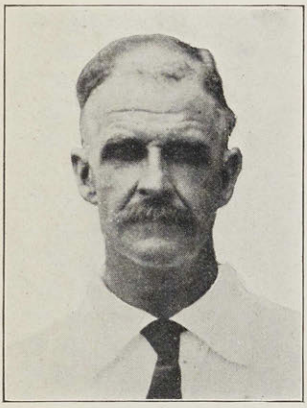
KIMBALL, EDWARD RICHARD (1889-91) II

103 Union Street, Newton Centre, Massachusetts.
Assistant Treasurer, Newton Centre Savings Bank.
Born, November 28, 1871, Boston, Massachusetts.
Married, 1896, Mabel C. Bayer. Child, Richard E.
Home, 63 Institution Avenue, Newton Centre, Massachusetts.

KIMBALL was a partner in the firm of E. R. Kimball and Company, stock brokers, 1896-1917. From 1920, to the present time, assistant treasurer, Newton Centre Savings Bank. During the war, in command of a rifle club which he helped to organize. He writes that he has had "a fairly comfortable life up to the present and a keen



Arthur H. Jameson



Charles H. Johnson

Simeon C. Keith

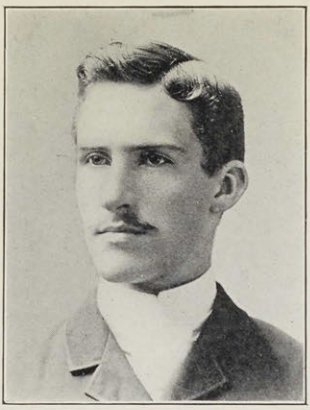
Albert L. Kendall

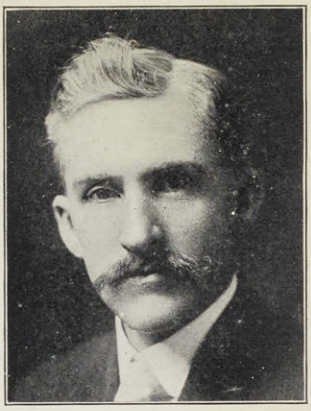
three prizes were won by Dillon, Hawley and Dearborn. The rain did not lessen, in the least, the interest in the celebration. The forenoon was spent by most of the party in getting acquainted and renewing old friendships, with bridge and roulette for those who desired indoor sports. The event of Saturday afternoon was the tea at Fabyan's delightful summer place at Buzzards Bay, some twenty miles from Wianno, and fortunately the rain ceased before this motor trip was scheduled. Fabyan's daughter, Mrs. Frothingham, to whom is accorded the distinction of being the '93 "class baby," proved a charming hostess in the absence of her mother, who was in Europe.

The celebration reached its climax at the class dinner "for men only" at the Wianno Club Saturday night, a separate dinner and entertainment being provided for the ladies who by this time had become well acquainted. While the men's dinner was in progress the annual business meeting of the class was held, cablegrams and letters were read from absent members in different parts of the world, and officers were elected for the ensuing year as follows: President, F. W. Fabyan; Vice-Presidents, H. A. Morss and F. N. Dillon; Secretary-Treasurer, F. H. Fay; Assistant Secretary, G. B. Glidden. The important item of business was the announcement by President Fabyan of the underwriting by a few members, in the name and in behalf of the class, of a fund of $100,000.00 as our Thirtieth Anniversary Gift to the Institute, to be used for the building of a dormitory. The announcement, which came as a surprise to nearly every man present, was received with tremendous enthusiasm.

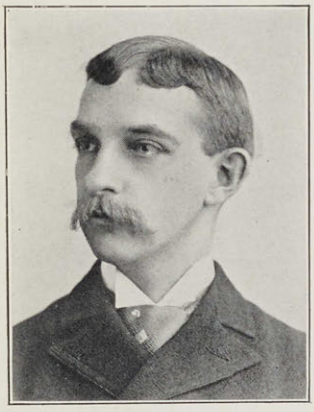
J. Ramsey Speer presided at the exercises after the dinner and was an admirable toastmaster. His own address touched upon the serious side of life, pointing out that upon men like ourselves who are in our prime must largely fall the burden of carrying on the world's activities in these troublesome times, and besides laying emphasis upon what we owe in the way of service, laying stress also upon the importance of Technology's training, which had been such an important factor in fitting us for service.

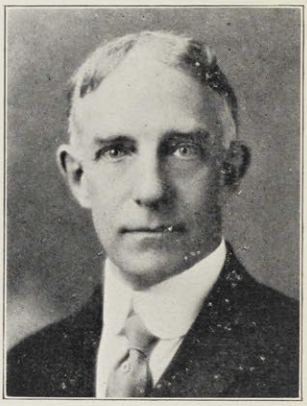
Speer then introduced as speakers men who took prominent parts in the Class Day festivities thirty years ago—Bemis, who was Class President in our senior year, who had presided at the Class Day exercises and who, by the way, first suggested and brought about the formation of the Institute Committee, which during the past thirty years has become the most important student group at the





Ervin Kenison





Frederic H. Keyes

George I. King

Warren D. King

realization that a very large percentage of the teaching I imbibed in childhood and youth has proven untrue." He belongs to two social clubs and is fond of sailing, autoing and farming.

KIMBALL, HENRY RAYMOND (1889-92) VI
Address unknown.

IN 1898, Kimball was in the engineering department of the Boston Elevated Railway Company; in 1909, assistant engineer with P. S. Hildreth, consulting engineer, New York City.

KING, GEORGE ILGENFRITZ (1889-91, 1896-97) II III
15 Stratford Road, Brooklyn, New York.
Research Engineer, Writer, Lecturer.
Born, April 9, 1871, York, Pennsylvania.
Married, September 14, 1898, Emma K. Campbell. Children, Marion C., G. I., Jr., Lucile C., Eleanor C., Robert E., John S.
Home, 15 Stratford Road, Brooklyn, New York.

KING left the Institute in 1891, and from that time until 1896, he was employed as draftsman by the Middletown Car Works; winter 1896-97, at Tech in special course; summer of 1897, with the Schoen Pressed Steel Company (now Pressed Steel Car Company) Pittsburgh, as draftsman and inspector; fall of 1897, chief draftsman for same company; winter of 1898 went to Detroit as draftsman with Michigan Peninsular Car Company (now American Car and Foundry Company) and became successively inspector of shops, engineer of steel construction, manager of steel car department, and consulting engineer. From 1902 to 1909 general manager, Middletown Car Works, Inc., Middletown, Pennsylvania; 1910 to 1913, chief engineer same concern, which has been purchased by and made subsidiary to Standard Steel Car Company of Pittsburgh; 1914 to 1919, manager export sales; general manager Eastern Car Company, subsidiary of the Nova Scotia Steel and Coal Company, Ltd., New Glasgow, Nova Scotia; 1919, to present time, financial advisor and executor; writer; lecturer; export specialist and research engineer.

He has designed many types of wood and steel freight cars and taken out sixty-five United States patents and many foreign patents; was the first to claim invention of "Z" bar side frames for box and coal cars, of which many thousands are now in use;

he was influential in introducing standards of American Master Car Builders' Association on State railways in South America and Russia. He has sold over ten million dollars worth of rolling stock to foreign government railways, in which connection he has travelled extensively throughout Europe, South America and Japan.

He was formerly a frequent contributor to *Railway Gazette* during development of steel railway cars; wrote catalogues; cable codes; handbook for railway car estimators; lectured on social and economic subjects and published handbook for distribution to workmen by employers. He is a member, American Society Mechanical Engineers; Masons and Elks. A son attended Tech — Course XIV — '23. He writes "my only amusement is to keep busy; have no hobbies."

King writes:

"Have never run for office; never been appointed except president, Middletown (Pennsylvania) Board of Health, 1907-08. During 1918 was active on Bond selling campaigns; was '4 minute' speaker. Most interesting experiences in foreign countries have been in Argentina, Brazil and Russia.

"Technology gave me a few professional tools, — but taught me nothing about men, — how to deal with them, or the meaning of civilization. I learned this by experience and paid too much for it! My criticism of technical education is this: ordinarily it is divorced from any study of society or civilization, — 'sociology' in other words is unknown to technicians, — to their harm. Power in civilization is measured by social efficiency, — efficiency as companions, — not as individuals. Makers of engineering courses at Tech have forgotten this or ignored it too much, — for *'social-efficiency' is the least understood thing there.*

"The reason why engineers in general are out of the main current of events, is because they are *not* socially efficient and they will remain outside until they are taught that superior intelligence equipped merely with tools to serve itself, — cannot lead *society* higher, — whatever else it may do. It is one thing to hand engineering courses to *mature* men who know life and its problems and who expect to use the training as a mason uses a trowel, — merely as an implement or tool. It is quite another thing to hand the same courses to *young* men, — ignorant of life and its meaning, — without killing the little social efficiency they already have! Technology is not now and never has been, — *socially efficient,* and that is the measure of its failure. It may be the greatest *technical*

school in the world, but until it becomes socially efficient, *it will have little influence over national development.*

"This partly explains why I have known practically no Tech men since leaving school, — except casually in business offices. No personal contacts were established that would endure; no feeling of responsibility to school or class was developed there and it is not surprising that I have attended no class meetings or dinners, — although taking a sort of detached interest in them.

"Every candidate for a degree should be given Kidds 'Social Evolution' or 'Principles of Western Civilization' or something similar as part of a course of lectures on Civilization. This course should impress the students with the fact that their success will be measured by their social efficiency, — and not at all by their technical efficiency. Too many brilliant engineers are failures as managers because they have not learned that the 'science of power' is the science of social efficiency."

KING, WARREN DUDLEY VI G

Peabody, Massachusetts.
Manager, Peabody Electric Light Company.
Married, October 9, 1894, Susie B. Baker. Children, Louise, Ebenezer Baker.

HE was connected with the Broad Cove Coal Company (mining) for three years; then went into electric construction work, in which he has been engaged ever since. Since 1902 he has also had the management of the Peabody Electric Light Plant. He was chairman of the finance committee of Peabody for three years and chairman of the Republican Town Committee for two years. He has also been a trustee of the Peabody Institute and president of the Peabody Historical Society. He is a member of the executive committee of the Municipal Electric Light Association, member of the Illuminating Engineers Society, the New England Society of Electrical Engineers and the Knights Templar and other masonic bodies.

KLIPSTEIN, ERNEST CARL (1891-92, 93-94) IV

1501-05 Chemical Building, St. Louis, Missouri.
Architect.
Born, February 4, 1866, St. Louis, Missouri.
Married, November 1, 1905, Grace Huiskamp. Child, Julia.
Home, 6244 Washington Avenue, St. Louis, Missouri.

"I WORKED a year in architect's office, went abroad, studied in Paris and Munich, '95 and '96.

"On my return worked in offices awhile, then took a position with University of Illinois as instructor of design, having charge of junior and senior work.

"Returned to St. Louis as draftsman and had very tempting offers to return to Illinois, but I figured I would rather be a lamp post in St. Louis than a lion in Champaign.

"Later on I started in business with Deitering, a fellow who had been at Tech one year. This proved an unsatisfactory combination, but convinced me that I could strike out for myself, which I did.

"In 1908 I took a young man in partnership and the firm has been fairly successful. Though we will design anything we get a chance at, we have earned a sort of reputation for industrial plants and have laid out a great number of these. The Bevo Plant, the largest building in St. Louis, costing some five million, was designed by us.

"The reason I have not been responding to your circulars for information is that most of my work while at Tech was '94, and I went to '94 reunions, even winning the iron cross at target shooting at our 25th annual reunion, which in itself should bar me from membership in '93. I have, however, given you my whole history to cover any doubt in the matter."

He is Fellow of the American Institute of Architects; a member of the St. Louis Architectural Club, Tech Architectural Society, Missouri Athletic Association, the Noonday Club, Racquet Club, City Club, Sunset Hill Golf Club, and Algonquin Golf Club, of St. Louis.

His hobbies are golf, touring and sailing.

KNOWLTON, WILLIS TAYLOR I G

502 Hosfield Building, Los Angeles, California.

Engineer of Sewers, City of Los Angeles.

Born, September 12, 1871, Malden, Massachusetts.

Married, April 12, 1898, Louise K. Folsom. Children, Marian W., Alice.

Home, 1632 South Van Ness Avenue, Los Angeles, California.

KNOWLTON was assistant in engineering force, City of Malden, Massachusetts, in 1893; assistant engineer, city engineer's office, Medford, Massachusetts, 1894-1897. In 1897-1898, he travelled in

the South and in California. Returning to the east he was employed by E. P. Adams, C. A. Hicks, and McClintock and Woodfall, civil engineers of Boston, on work at Boston, Needham, Andover and Everett, Massachusetts. From 1899 to 1901, he was assistant engineer for the Hawaiian Government, in charge of the sewerage and drainage systems for Honolulu. He considers this two and a half years in Honolulu his most interesting experience. For the next three years he was resident engineer on hydraulic and sanitary engineering work in Pennsylvania, Virginia, New Jersey, Ohio and Michigan for Hering and Fuller, hydraulic and sanitary engineers of New York City. Since 1905, he has been assistant city engineer in charge of sewers for the city of Los Angeles, California. During the War he assisted in Liberty Loan and War Stamp drives.

He believes the training at the Institute gives a man the ability to think and act in a proper manner with reference to professional work, and regrets he has had only occasional contact with his classmates since graduation. He served as president of the Technology Club of Southern California, which was organized about fourteen years ago. He sums up his accomplishment as having "assisted in the development of health and general public welfare of several cities and towns — some of which were in a very bad and insanitary condition."

He is a member, American Society Civil Engineers and Boston Society of Civil Engineers. He has written numerous articles and given addresses on sewerage and sewage disposal. He is a movie fan.

LABOUISSE, JOHN PETER (1889-93) VI
1423 First Street, New Orleans, Louisiana.

LAIGHTON, FLORENCE MARION; M.D. (1890-93) VII
33 West 96th Street, New York City.
Physician and surgeon.

FROM 1893 to 1898 she studied medicine at College of New York Infirmary, New York City. She was interne at the New England Hospital for Women and Children, Boston, in 1898-99; and has been in the practice of medicine and surgery in New York City since 1899. Miss Laighton has held appointments of assistant physician at Vanderbilt Clinic, medical department (1898-1900), and in the neurological department of New York Orthopedic Hospi-

tal and Dispensary (summer of 1902). In 1900, she became examining physician for the New York Life Insurance Company. She is a member of the Massachusetts Medical Society; the Medical Society of the County of New York, and the Women's Medical Association of New York.

LAMB, WILLIAM FRANKLIN VI G

38 Kilby Street, Boston, Massachusetts.
Wholesale lumber.
Born, January 6, 1872, Boston, Massachusetts.
Married, April 18, 1900, Edith V. Tupper. Children, Beatrice Vivienne, Eric Franklin, Eleanor Tremaine.
Home, 33 Mossfield Road, Waban, Massachusetts.

"I SPENT the summer of 1893 in the White Mountains and in the fall of that year secured a position, perhaps job is better, with the American Telephone & Telegraph Company in the New York office. I lived at the 'Ohm,' 75 Hicks Street, Brooklyn, famous for the number of Tech men living there and almost unique as a really successful experiment in co-operative living. I count the year at the Ohm as one of the happiest of my life. Ed Brown '90 (killed in the Spanish War), Mansfield and Oxford '91, Nowell and Rogers '94 were all at the Ohm during my year there.

"In 1894 was transferred to Pittsburgh, Pennsylvania, as district inspector. One '93 man, Bunny Dearborn, came to Pittsburgh about a year later and helped make the smoky city endurable.

"Resigned in 1898 to enter the wholesale lumber business in Boston with my father. After his death in 1912 became eastern sales agent for the Hilton and Dodge Lumber Company of Savannah, Georgia. In 1912 became vice-president and manager of the Pope & Cottle Company, Chelsea, Massachusetts, and in 1914, vice-president of W. F. Brown & Company, which position I now hold. My lumber experience has required considerable traveling largely along the east coast from Florida to Maine and in the Central South and in the pine woods of Michigan and Wisconsin.

"Served as a private in the State Guard during the police strike, forgetting all business cares. Must confess to enjoying the experience, although absolutely nothing happened that could be called exciting. Riding over Beacon Hill in a motor truck and armed with a riot gun is certainly unusual but hardly exciting.

"Although my work of late years has been far removed from

engineering, I have found my Tech training useful in many ways."

As to possible improvement at the New Technology, he adds: "College spirit has always been lacking at Technology. Special efforts should be made to foster this spirit. A more liberal attitude towards athletics is certainly needed."

He is a member of the Boston Chamber of Commerce, Newton Chamber of Commerce and Waban Neighborhood Club. Tennis and designing are his hobbies.

LAMBERT, WALLACE CORLISS I G

Box 116, Gleasondale, Massachusetts.

Fruit and Dairy Farm.

Married, October 15, 1895, Martha Bowles. Children, Donald Corliss, Richard Bowles, Hester Margaret.

SINCE leaving the Institute he has been occupied as follows: summer of 1893, private surveying work in Lowell, Massachusetts. September, 1893, to September, 1894, assistant engineer with city engineer of Lowell, Massachusetts; miscellaneous work, including that in connection with the construction of the East Merrimac Street bridge over the Concord River. September, 1894, to January, 1897, draftsman and assistant engineer in charge of work, Boston Bridge Works. January to June, 1897, assistant engineer with J. R. Worcester, consulting engineer, Boston, Massachusetts; assisted in the design of the South Terminal Station, Boston, and other work. June, 1897, to April, 1900, on the design of steel work, Boston Elevated Railway structure and other work. At this time he was principal assistant engineer in Mr. Worcester's Boston office and had responsible charge of a large portion of the Elevated structure. April, 1900, he became assistant engineer, New England Structural Company, in charge of estimating department, Boston, from which position he resigned some years ago on account of ill health. He is an associate member of the American Society of Civil Engineers.

*LANE, GEORGE H. THOMAS (1889-93) II

Died August 29, 1904.

LATEY, HARRY NELSON VI G

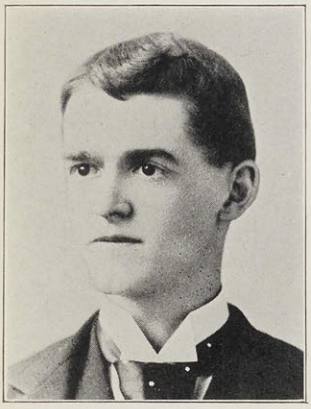
49 Lafayette Street, New York City.
Engineer of Equipment and Operation, Transit Commission, State of New York.
Born, October 14, 1870, Omaha, Nebraska.
Home, 587 Riverside Drive, New York City.

FOR about a year after graduation Latey took an apprentice course in the works of the Westinghouse Electric and Manufacturing Company at Pittsburgh, with Sutter and Maki of the class. Then for four years he was in charge of field engineering work for that company at St. Louis, Missouri. From 1898 to 1901, assistant electrical engineer in the electrification work of the Manhattan Elevated, New York; 1901 to 1904, principal assistant electrical engineer, Rapid Transit Subway Construction Company, on the first New York Subway. In 1904, he was made electrical engineer of the whole Interborough Rapid Transit Company, in charge of operation of the subway and elevated roads until 1907, when he went into business for himself with F. R. Slater of Cornell, doing consulting and construction work, mostly of electrical railroad nature. 1912 to 1917, with General Electric Company as special railroad sales engineer. 1918, electrical engineer for Pratt Engineering Company on munition plant at Little Rock, Arkansas; "managed to get plant into operation and made 100,000 pounds of picric acid before closing with armistice" — that was his war work. 1919-1920, with B. F. Woods, Engineers, Inc., on power plant work. 1920 to date, with Transit Construction Commission and its successor, the Transit Commission, State of New York, in charge of the electrical section, regulating the railroads and street railways of New York City. W. C. Whiston, '93, is with the same section.

He is a fellow of the American Institute of Electrical Engineers; member, American Society of Civil Engineers; Railroad Club, Engineers Club, Technology Club, Arkwright Club, Phi Gamma Delta Club—all of New York. His amusements and hobbies are work, golf, automobile and the movies. He is still single.

He writes that he has been in contact with many '93 men but nothing of special interest happened, and he thinks he is too far away to make suggestions for possible improvements at the New Technology.

Ernest C. Klipstein



Willis T. Knowlton

William F. Lamb

Institute; Beattie, who related something of the undergraduate history of the class; Taintor, First Marshal on Class Day, who spoke of the '93 men whom he had met on his recent trip around the world; Dillon, Class Day Second Marshal, who spoke of the Thirtieth Anniversary Class Book and the need of co-operation by every member of the Class in sending in a reply; Gorham, Class Day Third Marshal, who voiced the general sentiment of the meeting regarding the modesty and fine class spirit of the unknown group of underwriters who had made possible in the name of the Class, the Thirtieth Anniversary dormitory gift to Technology; Blake, the Class Day Orator, who lived up to the title in telling of his observations on a trip around the world from which he had returned only a few days before; Percy Thomas, Class Day Statistician; and Henry Morss, the Class Prophet, who gave extracts from his prophecy of thirty years ago, some of which in the light of experience was extremely amusing. C. R. Boss, in responding to the toast, "I have nothing to say," made a stirring appeal for the support of our Alma Mater.

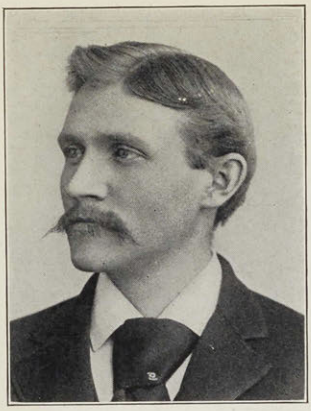
With Sunday came bright sunshine, mild temperature and a rare June day. The event of Sunday morning was the baseball game between the Orange and Black class teams, captained respectively by J. A. Emery and George Glidden.

At the conclusion of the game the winning Orange team performed successfully some evolutions acquired in military drill thirty-four years ago, after which each member was presented with a medal commemorating the victory.

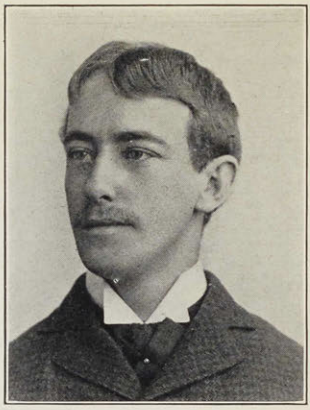
M. I. T. "'93" BALL GAME

SUNDAY MORNING, June 10, 1923

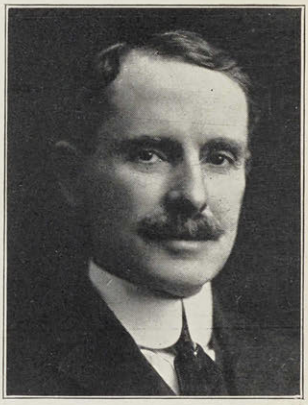
Orange		*Black*
Emery	Pitcher	Glidden
Thomas, P. H.	Catcher	Latham
Vining	1st Base	P. Lynch
Bemis	2nd Base	Bryant
Dillon	S. S.	Stose
C. Paine	3rd Base	Lamb
Buchholz, Fay, Morss, Reynolds	Outfielders	Waldron, Spofford, Wallis, Dawes



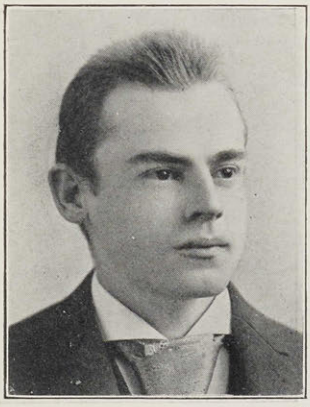
Wallace C. Lambert

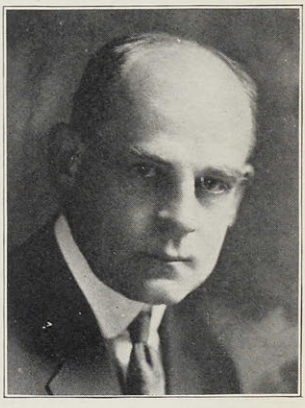


*George H. T. Lane



Harry N. Latey





Harry M. Latham

LATHAM, HARRY MILTON II G

93 Grand Street, Worcester, Massachusetts.
Chief Engineer, Crompton and Knowles Loom Works.
Born, June 2, 1871, Stoneham, Massachusetts.
Married, June 19, 1915, Agnes Gleason Vaughan. Child, Vaughan Milton.
Home, 64 Cedar Street, Worcester, Massachusetts.

DECEMBER, 1893, to May, 1895, draftsman, D. M. Osborne Company, Auburn (New York); July, 1895, to January, 1898, draftsman and designer, Crocker-Wheeler Electric Company, Ampere (New Jersey); January, 1898, to December, 1899, in experimental department, Bell Telephone Company, Boston (Massachusetts); December, 1899, to January, 1912, engineer, American Steel and Wire Company, Worcester (Massachusetts); February, 1912, to August, 1916, department manager, B. F. Sturtevant Company, Hyde Park (Massachusetts); September, 1916, to present time, chief engineer, Crompton and Knowles Loom Works, Worcester (Massachusetts).

"My most interesting experience was when, as engineer of the wire rope department of the American Steel and Wire Company, I spent the greater part of two years investigating and reporting upon the uses of wire rope in various industries. In this connection I made frequent visits to the great mining centers of the United States, viz., Pennsylvania, Michigan, Minnesota, North Dakota, Wyoming, Colorado and Utah. I also spent several weeks one summer investigating the uses of wire rope on ships in the Great Lakes. The object of all these investigations was to improve operating conditions and to develop types of rope best suited to the various conditions of use.

"By way of diversion I made a couple of trips abroad. The last one, in 1914, just prior to the war was made in company with Bert Dawes and covered a long steamer trip through the Mediterranean, a month in Egypt with a steamer trip up the Nile to Assuan and a few weeks in Southern Europe."

Latham has given miscellaneous addresses before engineering societies on various subjects generally relating to power or steam engineering. He is a member, American Society Mechanical Engineers, Worcester Chamber of Commerce, Tatnuck Country Club and Worcester Tennis Club. He is a golf enthusiast.

LAWTON, ST. JOHN ALISON (1891-92) IV

41 South Battery, Charleston, South Carolina.
Planting and Dairying.
Born, May 2, 1869, Charleston, South Carolina.
Married, November 22, 1905, Ruth Jennings.
Home, 43 South Battery, Charleston, South Carolina.

AFTER leaving the Institute Lawton spent a year in an architect's office in Washington; then for a time was planting with his father, and spent one summer inspecting U.S. surveys in the State of Washington. After that he was employed as engineer in building the electric railroad of Charleston, South Carolina, when horse cars were abandoned. He has also done some architectural work in Charleston, the largest job being the remodelling of an old hotel, the Mills House, into a modern hotel, which is renamed the St. John, and of which he was for a time the manager.

"I would not take a good deal for my education at the Virginia Military Institute. I am also glad to have been in Boston for the short time I was there — I did not stay there long enough to get the full benefits; being called home in December to take charge of the plantation of my father, whose health had failed. A year afterwards I started to take up architecture with an architect in Washington; but was called home again. I own and run a plantation on James Island that has been in the ownership for over 100 years of only three persons, — my grandfather, father, and self. I have built up the largest dairy herd in the state, selling my own milk in Charleston through my retail department. My herd are all Holsteins — 175 head of as good as can be found — I planted for years Sea-Island Cotton, the finest cotton in the world; but the industry has been wiped out by the boll weevil. I also plant considerable truck for New York and other markets."

Lawton has been for fourteen years a member of the County Executive Committee. He is a member of the Charleston Chamber of Commerce, the St. Cecilia Society of Charleston, Huguenot Society and the South Carolina Agricultural Society, and several other agricultural organizations. He is a graduate of the Virginia Military Institute of Lexington. He takes his amusements mostly in connection with his business, but is fond of a game of cards in the evening, and he is a collector of rare coins.

LEEDS, EDMUND INGERSOLL (1890-92) IV

89 Franklin Street, Boston, Massachusetts.
Architect, member of Brainerd and Leeds.
Born, May 6, 1873, Newton, Massachusetts.
Married, June 18, 1903, Alice M. Marshall. Children, Edmund I., Jr., Elizabeth H., Alice W.
Home, 237 Park Street, Newton, Massachusetts.

"AFTER leaving Tech in 1893, I was employed with Peabody and Stearns until I went abroad in 1897, where I remained at the Ecole des Beaux-Arts, Atelier Pascal, during the school year of '97-'98. Soon after my return a partnership was formed between Brainerd, Leeds & Russell, who designed several important buildings in Boston, such as the Ford Building, Home of the Baptist Social Union; the Salvation Army Headquarters; and several school buildings. About 1908 the partnership became Brainerd and Leeds, which has practiced architecture, principally along the line of public buildings.

"During the World War I served in the Newton Constabulary, doing police duty at the time of the police strike in Boston."

He is a member, American Institute of Architects, Boston Society of Architects; Shrine, 32 degree Scottish Rites, Knight Templar.

LEVI, LOUIS (1890-92) IV

1232 Real Estate Trust Building, Philadelphia, Pennsylvania, and Munsey Building, Baltimore, Maryland.
Architect.
Born, December 29, 1868, Baltimore, Maryland.
Married, March 30, 1911, Florence Dalsimer.
Home, Hotel St. James, Philadelphia, Pennsylvania.

"STUDIED architecture in the office of the late Charles L. Carson, architect, Baltimore, Maryland, beginning in October, 1886. I then entered M.I.T. as above stated, after which was in the office of Joseph Evans Sperry, architect of Baltimore, for nine and a half years. Then opened my own office in Baltimore for the practice of architecture, which I have continued until this day.

"In Baltimore until July, 1911. Then moved to Philadelphia, continuing offices, however, in both Philadelphia (Real Estate Trust Building) and in Baltimore (Munsey Building).

"Helped to rebuild Baltimore after the Great Fire of 1904, being the architect for numerous warehouses, factories, business

buildings, etc. Have also done two hospitals, five synagogues, an insurance office building, many store buildings in Philadelphia, Baltimore, and Washington.

"'Have you benefited from your Tech training?' By all means, *Yes.*"

During the war, he was connected with the Emergency Fleet Corporation for fourteen months.

Levi graduated from Baltimore City College in 1886. He delivered a paper on "The Temples of Antiquity" before the Baltimore Architectural Club. He is a member of the Philadelphia Chapter of the American Institute of Architects, Technology Club of Philadelphia; Mercantile Club of Philadelphia. His amusements are tennis, lectures and theatre.

*LEWIS, HERBERT; M.A. VI G

Died in April, 1914.

FOR a short time after graduating, Herbert Lewis was with the Westinghouse Electric and Manufacturing Company at Pittsburgh, Pennsylvania. He became assistant examiner in the United States Patent Office in 1896, and held that position for several years.

LOGAN, JOHN WOOD II G

1818 Widener Building, Philadelphia, Pennsylvania.
Secretary, Alan Wood Iron and Steel Company.
Born, December 28, 1872, Greensburg, Pennsylvania.
Married, September 23, 1897, Rachel Miller Thomas. Children, John W., Jr., Helen B., George T.
Home, 16 Bala Avenue, Bala, Pennsylvania.

AFTER graduation he spent the summer at the World's Fair in Chicago as superintendent of installation, department of machinery; from the fall of 1893 to 1899, was employed by the Pennsylvania Iron Works Company at Philadelphia as draftsman, machinist apprentice, erecting engineer, foreman, assistant superintendent and assistant engineer in the ice machine department. He was treasurer and manager of the Logan Manufacturing Company, which company he had organized from 1899 to 1904, at Phoenixville, Pennsylvania, in the steel and iron castings business. Since 1904 he has been with the Alan Wood Iron and Steel Company, in the sales department at Philadelphia in 1906; assistant manager of the steel work department at Ivy Rock, Pennsylvania, in 1911;

manager, 1919, and now secretary. His war work consisted in producing in the plant under his management every ton of steel plates and billets possible for the United States Government and all the Allied Governments. His tribute to his Alma Mater is, "My Tech training is the foundation of everything I have done since leaving." His son, John W., Jr., graduated from the Institute in 1920.

He is a member, American Society of Mechanical Engineers, American Iron and Steel Institute, American Institute of Mining and Metallurgical Engineers; Philadelphia Country Club, Markham Club, Philadelphia, and Delta Upsilon fraternity. Golf and his family are his hobbies.

LOMB, ADOLPH (1889-91) II

995 Madison Avenue, New York City.
Of Bausch and Lomb Optical Company, Rochester, New York.
Home, 635 St. Paul Street, Rochester, New York.

LOMB's headquarters are at the New York office of his firm. During the War, Bausch and Lomb manufactured optical and engineering instruments, optical glass for range finders, gun sights, telescopes, binoculars, periscopes and camera lenses.

LORCH, EMIL; A.M. (1890-92) IV

College of Architecture, University of Michigan, Ann Arbor.
Professor of Architecture and Head of College, University of Michigan; practicing architect.
Born, July 21, 1870, Detroit, Michigan.
Married, August 22, 1906, Jemima A. Elmslie. Children, four.
Home, 718 Church Street, Ann Arbor, Michigan.

PROFESSOR LORCH was a draftsman for two and a half years with Scott & Company, architects, and for one year a student of the Detroit Museum Art School, before he attended the Massachusetts Institute of Technology, where he studied for two years. Subsequently he had office experience with C. H. Blackall and Peabody & Stearns, of Boston, and John Scott & Company of Detroit. In 1898-99, he was a student in Paris, France, at the College of France, Ecole des Beaux Arts and Ecole du Louvre. From 1901 until 1903, he attended Harvard University, where he received the degree of Master of Arts. It was during this period that he prepared his

well known drawings for the one-inch scale model of Rheims Cathedral, copies of which are at the Art Institute of Chicago and Columbia University.

As an instructor, Professor Lorch spent three years at the Detroit Museum Art School and two years at Chicago Institute as assistant to the director, his duties in the latter institution having to do, principally, with the art school, which comprises all fields of art instruction and has an enrollment of some 2,000 students and a correspondingly large faculty. During this period he was also secretary of the Chicago School of Architecture, which he helped organize. For two years he was teaching assistant in architecture at Harvard University and for three years assistant professor of architecture at the Drexel Institute of Philadelphia.

Since 1906 he has been professor of architecture at the University of Michigan, whose architectural department (now an integral part of the College of Engineering and Architecture) was organized by him.

From 1914 to 1917, Professor Lorch was "patron," or critic, of the Detroit Architectural Atelier.

Professor Lorch's teaching has been primarily of design and architectural history. Other aspects of his work involve the building up of equipment and teaching staff, and the planning and coordination of various kinds of instruction. He has for years advocated necessary changes in architectural instruction and methods.

Professor Lorch has been a practicing architect for thirteen years. He prepared the first general building plan for the University of Michigan and was one of the competitors for the Scott memorial fountain. From 1915 to 1918 he was a member of the Belle Isle Bridge Commission and architect of the new bridge at Detroit, an illustrated report on which he edited and published for the commission in 1918. On this problem he determined very largely the question of location, design and terminals and the general architectural treatment of the problem and the omission of the draw.

Professor Lorch helped prepare and obtain the enactment of the Michigan Registration Law for Architects of 1915. He has been a member of the state board since 1915.

He suggests for the New Technology: Higher general educational requirements either for admission or graduation. The narrowly trained technical tool is a poor social instrument, limiting his own future and not strengthening the profession he serves. A

broader education would bring a more catholic view of architecture and avoid the pitfalls both of over-traditionalism and of radicalism. This is a great country with untold possibilities which need to be understood if they are to be intelligently interpreted.

Since 1921, he has been president of the Association of Collegiate Schools of Architecture; was president of the National Council of Architectural Registration Boards, 1920 to 1922; past member of Committee on Education, and at present member of Committee on Registration Laws, American Institute of Architects; member of Advisory Editorial Board, *Western Architect;* American Institute of Architects; Michigan Society of Architects, Association of Collegiate Schools of Architecture, Ann Arbor Art Association; Tau Beta Pi, Tau Delta Sigma, Alpha Rho Chi, American Art Association of Paris; University Club of Ann Arbor.

At a dinner tendered him by the architects of Michigan, under the auspices of the Michigan Chapter, American Institute of Architects and the Michigan Society of Architects, it was said of him:—

"Reviewed in the light of things accomplished, the professional career of Emil Lorch has been a long and fruitful one. He has done much, not only for the advancement of architecture in the city and state, but his readiness to give freely of his time and money in obtaining needed legislation, establishing educational foundations and generally fostering interest in the arts and crafts has been and still is an important factor in the state's esthetic development."

He wrote "The Architectural Student and His Relation to Professional Practice," published in *The Annals* of the American Academy of Political and Social Science, and has delivered lectures without number. His hobbies are children and art.

LORD, FREDERIC WAIT (1889-94) VI

105 West 40th Street, New York City.

President, Lord Electric Company, Lord Construction Company, and Lord Manufacturing Company.

Born, July 3, 1871, Brooklyn, New York.

Married, September 29, 1906, Mrs. Alice Kirkham Garrison. Children, Anne and Mary (twins), Ellen. Step-children, Lloyd K. and Clarinda Garrison.

Home, 238 East 68th Street, New York City.

"AFTER working during the summer of 1894 as a messenger in the National Bank of Commerce in Boston, I started as an electrical helper in the Boston Edison Company. Shortly afterwards, owing

to the discontinuance of their wiring department, I was discharged and went to work for E. C. Lewis, a Boston electrical contractor. Early in 1895 the Lord Electric Company was formed. I persuaded T. P. Curtis, '94, and R. H. Hallowell, Harvard, '96, to come with me, and with their help built up a good organization and a good business. In 1904 we opened a New York office, where I have been since."

His firm installed the electric wiring for the Knickerbocker Hotel, Plaza Hotel, New York Public Library, Metropolitan Tower and many others. The company has organized a manufacturing department devoted especially to making safety and economizing devices.

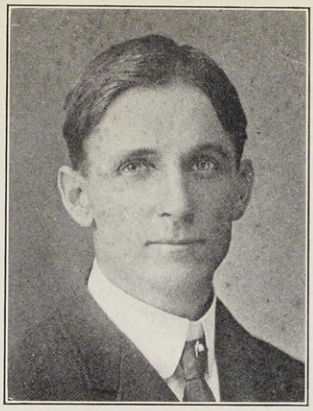
During the war the company was engaged in wooden ship construction in District 2 and is credited by the district supervisor with having been largely instrumental in enabling this district to launch the first standard wooden ship. The company's plant at Providence, which was chiefly charged with equipping the vessels, was credited by government officials with having done its work quicker, better and at ten per cent less cost than any other yard engaged in the same type of work.

Lord was the inventor of "National" tennis tapes; and author of "Ethics of Contracting and Stabilizing of Profits." He is a member of Theta Xi fraternity and the Engineers, Uptown, and Racquet and Tennis Clubs of New York. Amusements and hobbies are sailing and work shop.

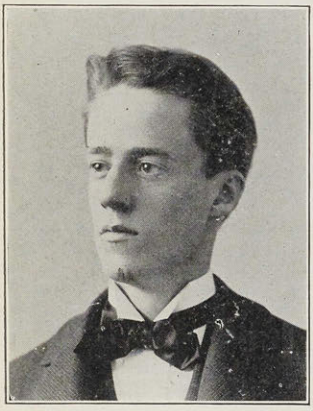
*LOTZ, ARTHUR CHARLES (1890-92) IV
Died February 23, 1912.

IN 1909, Arthur Charles Lotz was building construction superintendent with office at 1301 Rector Building, Chicago, Illinois. In 1903, he wrote:

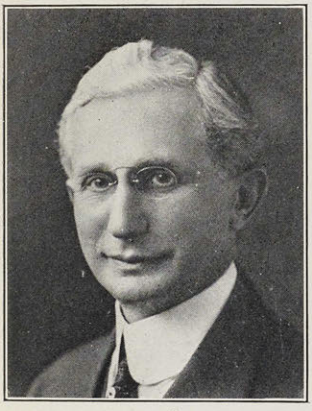
"General engineering superintending until 1899. Since then practicing as gas engineer, particularly in acetylene. Have to date designed and installed the largest automatic acetylene gas generators in the world, running as high in capacity as 75,000 candle power." He was a member of the Phi Beta Epsilon fraternity and had written articles on acetylene.



St. John A. Lawton



Edmund I. Leeds



Louis Levi

*Herbert Lewis

F. D. Smith, Plate Umpires Bases, Roy Beattie
10 Runs 5 Runs

Score by Innings

Emery's Team.....	3	0	0	2	1	3	1	—10
Glidden's Team.....	0	0	2	0	0	3	0	— 5

Scorekeeper, F. W. Baker.

Sunday afternoon saw the breaking up of the party at Wianno, after one of the most enjoyable reunions ever experienced by any class. Most of the party returned to Boston that afternoon in order to be on hand for the Inauguration of President Stratton Monday morning. An event such as this is not only well worth while from the social standpoint of renewing old times and old friendships and extending one's acquaintance, but of far greater significance is its effect in renewing and strengthening in the alumni love for their Alma Mater. Upon such Tech spirit, upon the interest and support of her alumni, Technology must largely depend for her successful advancement.

The geographical distribution of those attending the Reunion follows.

UNITED STATES

CALIFORNIA

SAN FRANCISCO: J. E. Woodbridge.

CONNECTICUT

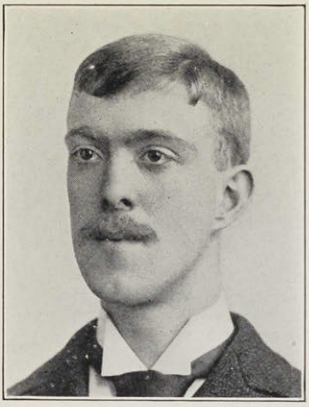
BRIDGEPORT: H. R. Sargent.
NEW LONDON: C. R. Boss, Mrs. Boss.
WATERFORD: C. R. Darrow, Mrs. Darrow.

DELAWARE

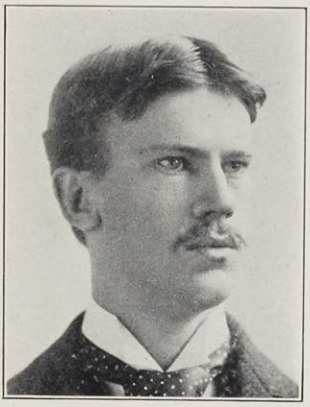
WILMINGTON: C. A. Tripp, Mrs. Tripp.

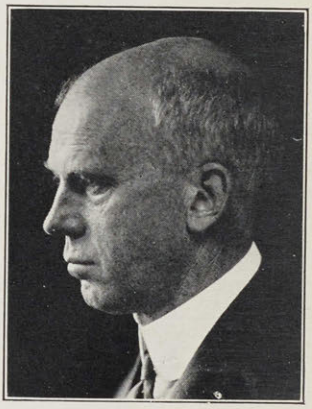
DISTRICT OF COLUMBIA

WASHINGTON: Lt. Col. H. L. Rice, G. W. Stose.



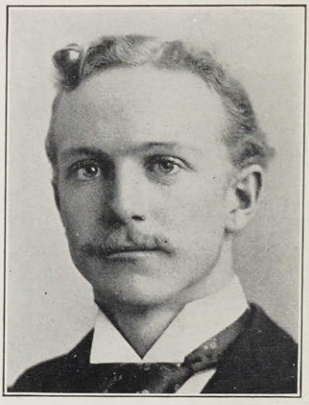
John W. Logan





Frederic W. Lord

Frederic F. Low



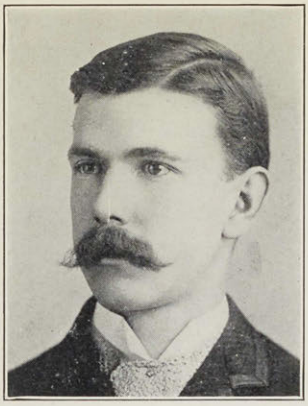
*George E. McQuesten

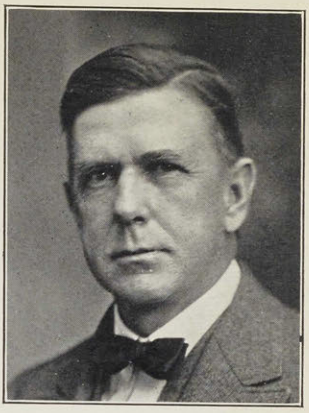
Heiichiro Maki

Frank H. Merrill

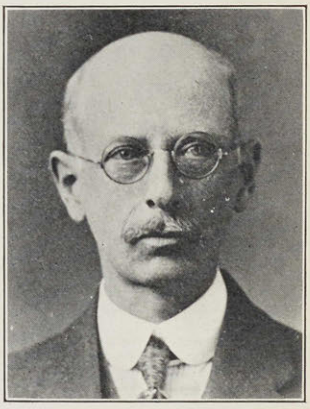
George E. Merrill

Richard E. Meserve

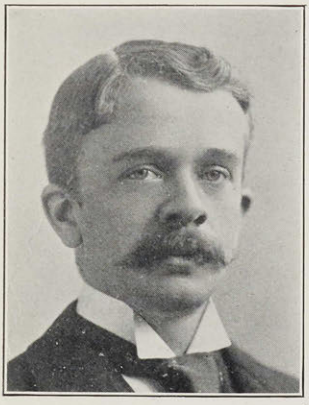


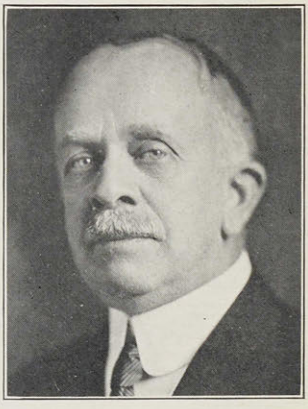


George L. Mirick



Charles F. Morse





Henry A. Morss

LOW, FREDERIC FRIEND (1890-91, 1893-94) IV
108 Massachusetts Avenue, Boston, Massachusetts.
Architect with Boston Elevated Railway Company.
Born, 1872, Gloucester, Massachusetts.
Married, May 15, 1900, May E. Cunningham. Child, Elizabeth.
Home, 158 Pleasant Street, Arlington, Massachusetts.

"EXCEPT for a few years spent in individual architects' offices, I have been located with the Boston Elevated Railway Company."

Low is a member of the Boston Society of Architects, American Electric Railway Association and the Masonic fraternity.

LYNCH, PATRICK MAURICE I G '94
206 High Street, Holyoke, Massachusetts.
General Contractor; Lynch Brothers Brick Company, P. M. Lynch, Treasurer.
Born, December 17, 1869, Holyoke, Massachusetts.
Married, February 3, 1913, Esther M. Sears.
Home, 570 Appleton Street, Holyoke, Massachusetts.

IN 1893, Lynch was assistant city engineer, City of Holyoke; 1894-1902, practicing as civil engineer and architect; 1902 to present, in general contracting lines, Lynch Brothers Brick Company, of which company he is treasurer.

He writes that he is Independent in politics except that he always votes for M.I.T. men.

McKENZIE, DONALD NEIL (1890-92, 1893-94) IV
2107½ Post-Office Street, Galveston, Texas.
Architect.
Born, November 18, 1871, Galveston, Texas.
Home, 1726 Post-Office Street, Galveston, Texas.

UPON completing the partial course in architecture at the Institute in 1892, he worked for a year in an architect's office in Chicago, then returned to Tech for a year's study in 1893-94. For the next three years he was employed by an architect in Boston, after which he spent three months in Europe. Since 1898, he has had an established office of his own in Galveston. He was a student at the University of Texas, 1888-89. He is a member of the Texas State Architects' Association.

McKenzie is still single.

*McQUESTEN, GEORGE EDWARD VI G
Died November 7, 1916.

GEORGE E. McQUESTEN, treasurer of the George McQuesten Company of Boston, and a resident of Brookline, died from pneumonia at the Alston Hospital, New York. He was visiting that city on business and was there taken ill. He was born in Nashua, New Hampshire, on May 1, 1868, and after graduating from the Massachusetts Institute of Technology, entered the business which his father founded. He was one of the pioneers in automobiling in Massachusetts and was one of the charter members of the Massachusetts Automobile Club.

His great interest in electrical inventions led him to erect a windmill on his father's estate at Marblehead Neck, which was one of the first aërogenerating plants for supplying electricity for private use in the country. The plant later received the favorable attention of the Government.

He was a member of the Country Club, Eastern Yacht Club, and several other clubs in Boston and New York; the Masonic fraternity and the Mystic Shrine.

He is survived by a widow and a daughter, Barbara.

MAKI, HEIICHIRO VI G
Nantei, Chosen, Japan.
Director, Collbran and Bostwick Development Company; Consulting Electrical Engineer, The Seoul Mining Company; Adviser, Chosen Electric Power Development Company of Korea.
Born, Saga, Hizen, Japan.
Married, December 7, 1897, Chiyeko Okuma. Children, daughter, Shizuko; son, Nagatoshi. Grandchild, Sachiko Kiyosuye.
Home, Rokudaimatsu, Numadzu, Suruga, Japan.

"CHIEF ENGINEER, Kyoto Electric Tramway (the first oriental electric railway), Hoshyu electric railway, Tokyo electric tramway, consulting electrical engineer, Seoul Tramway and Light Company, Korea, Seoul Mining Company, Korea. Chosen Electric Development Company of Heijo, Chosen. Tanko Railway Company, Hokkaido, Japan, etc., etc. Tech training has guided my work and I always consider myself to be fortunate to think that I am one of '93. I have only one record noteworthy and interesting, but certainly not

benefited by my Tech training; nevertheless, it is the fact strongly backed by the personal touch and human element. To tell the story short, I have a daughter born to us as already announced some years ago and after an elapse of TWENTY years her BROTHER arrived (now aged four). I consider him very much brighter than his father and he enters Tech in the year of his father's Forty-Fifth Class Reunion. My wife and I have already commenced making some preparations for our 'Gold' wedding dinner to be held in Boston when he graduates.

"Have met Bemis, Keith, Taintor when they visited Japan."

He is a member of the Japan Engineering Society, Japan Electrical Engineering Society, Japan Electrical Association and the Tokyo Doki Club and the Phi Gamma Delta fraternity. His amusements and hobbies are hunting, motoring, floriculture, horticulture and gardening in general.

Bemis writes of Maki:

"In both of my world tours I stopped in Japan and connected with our classmate, Heiichiro Maki, now Baron Maki. I understand he has been interested in electrical transmission in Korea, but the fact that he has lived up to the high standards of '93 is evidenced by his wartime title of Baron; and the fact that he is just as good a fellow and as loyal to Tech and as interested in '93 as he was thirty years ago I can heartily bear witness to as a result of his hospitality to me on the occasion of both my visits to Japan."

MANNESMANN, ROBERT (1891-92) III

Remscheid, Germany.

IN 1898, with Mannesmann Cycle Tube Company, New York City.

MARCY, WILLARD ADNA II G

3413 James Street, Syracuse, New York.
Mechanical Engineer, The Lamson Company.
Born, October 15, 1870, Newton, Massachusetts.
Married, August 23, 1915, Jane Locke. Child, Willard.
Home, 112 Melrose Avenue, Syracuse, New York.

"1895-1900, with Saco-Lowell Shops, Newton, Massachusetts; 1900-1903, with Planters' Compress Company, Boston, Massachusetts, machine designer and experimental engineer; 1903-1905, mechanical engineer with G. K. Hooper, Consulting Engineer, New York City; 1905 to date, with The Lamson Company as construction superin-

tendent, chief draftsman, designer and general engineering at Boston, Lowell and Syracuse. During the war, for the Lamson Company, designed mechanical conveyors for munitions plants."

He writes that he sees '93 men once in a while; and that he is too modest to tell of his accomplishments.

MARSHALL, ALBERT TISDALE; B.S., M.E. (1892-93) II
Hartford, Connecticut.
Chief Mechanical Engineer for The Automatic Refrigerating Company.
Born, May 15, 1867, Brockton, Massachusetts.
Married, August 3, 1893, Lois A. Dunbar. Children, Ralph M., Paul H.
Home, 53 Oakland Terrace, Hartford, Connecticut.

HE graduated from Worcester Polytechnic Institute in the course of mechanical engineering in 1889. "After leaving M.I.T., was with The York Manufacturing Company, York, Pennsylvania, as chief draftsman, for about four years, then spent about two years building and experimenting with small automatic refrigerating machinery, which I patented. These patents were bought by the Automatic Refrigerating Company when it was formed, from which time I have been with them." He is a member of the American Society of Mechanical Engineers and the American Society of Refrigerating Engineers. His hobby is boating.

MASON, ELIZABETH SPALDING; A.B. (1889-90, 1891-93) V
53 Crescent Street, Northampton, Massachusetts.
Associate Professor, Smith College.
Born, January 30, 1863, Boston, Massachusetts.
Home, 53 Crescent Street, Northampton, Massachusetts.

SECRETARY to Mrs. R. H. Richards, M.I.T., for three years, then assistant instructor and associate professor at Smith College.

Miss Mason graduated from Smith College in 1887, receiving the degree of A.B. She is a member of the American Chemical Society.

*MASSEY, FREDERICK VICTOR (1889-90)
Died November 15, 1889.

*MEAD, PERCY WINTHROP (1887-92)
Died September 27, 1892.

MERRILL, FRANK HENRY X G

633 East First Street, Los Angeles, California.
Vice-President and General Manager, Los Angeles Soap Company.
Born, May 1, 1871, Newburyport, Massachusetts.
Married, November 28, 1894, Grace Carver Johnson. Children, Paul Carver, Ruth Elizabeth, Willis Henry.
Home, 2420 Ocean View Avenue, Los Angeles, California.

"FROM 1893 to 1897, chemical engineer with Jobbins and Van Ruymbeke, in charge of erection and operation of new plants for the recovery and refining of glycerine. During these four years, visited all of the important manufacturing centers of United States and Canada, and discovered that Los Angeles is by far the most desirable place of residence in North America. Accordingly in 1897, became associated with Los Angeles Soap Company as chemist in charge of manufacturing, with a small salary and a chance to grow up with the business. Have devoted a majority of my time and effort during past twenty-five years to building up the business of my firm with the result that it has grown twenty-five fold. Have been chemist, superintendent, assistant general manager, general manager, vice-president and am now executive vice-president and general manager. Tech training gave me the start as a technical man and has been of great value through all the thirty years not only in the solution of technical problems which constantly arise but in the solution of all sorts of problems, by clear thinking and sound reasoning developed by the training at Tech. Have always been most thankful for the extra year at Tech and the opportunity which it gave of additional lectures and studies in economics and business law. Such training is of great help to the technical man when he reaches the executive positions. If more attention could be given to such subjects at Tech, if only in the form of lectures, it would make the advancement from technician to executive easier and more likely. The present tendency seems to be to train the student to be either a technician or an executive. This to my mind is a mistake. A good executive must know his business thoroughly and cannot learn it in the office. He must begin in the works and can find a place there only by knowing technology and can get out of the works only by knowing business."

One of his sons has attended the Institute. Merrill is a member, American Institute Chemical Engineers, American Chemical

Society, University Club of Los Angeles and Flintridge Country Club. His hobby is golf.

MERRILL, GEORGE EARNEST (1889-90, 1891-93) IV
23 East 26th Street, New York City.
Architect; Secretary, The American Baptist Home Mission Society.
Born, July 17, 1870, St. Paul, Minnesota.
Married, April 23, 1895, Grace G. Mortimer (deceased); February 6, 1900, Lulu Belle Orcutt. Children, Grace M., Mary Alice, George E., Jr., David O.
Home, 14 Gardiner Place, Montclair, New Jersey.

MERRILL was an architect and building contractor in Boston in 1893-95; manager of construction work for Ernest Flagg, architect, in New York City in 1896, in Pittsburgh, 1896 to 1898, at the Naval Academy, Annapolis, Maryland, 1898 to 1902. In 1902, he was made superintendent of construction by the Noel Construction Company, in charge of the rebuilding of the United States Naval Academy, and later he entered the employ of that company and represented it in the rebuilding operations at the Naval Academy, costing $8,000,000. Later, he became vice-president of the Noel Construction Company and in 1908, removed to North Chicago to take charge for his company of the building of the United States Naval Training Station, costing $2,000,000. In 1911 and 1912, he was manager of building construction for John M. Ewing of Fullerton, Louisiana; 1912-14, manager, building construction for George A. Fuller Company of New York City; 1915-16, architect, again associated with Ernest Flagg, architect of New York City; 1916-18, manager, building construction work for John B. Roberts of New York City. During the war, 1918-19, he was general assistant engineer, cotton purification department, Smokeless Powder Plant at Nitro, West Virginia, after which he returned to his building construction work with John B. Roberts for a year. Since 1920, he has been architect in charge, department of architecture, American Baptist Home Missionary Society. Merrill has had personal charge of the construction of building work, totalling in excess of two hundred million dollars. He writes:—"Experiences with Government officials while erecting the buildings at United States Naval Academy at Annapolis and the Great Lakes Training Station at North Chicago, also with politicians while erecting the City Hall in Chicago, would fill

volumes." He was a student at the University of Minnesota in 1890-91. Of benefit derived from Tech training he says, "Every day in every way." An unexpected contact with a '93 man was when he ran onto Arthur Fowle in a hotel at Charleston, West Virginia, and recognized him after twenty-five years. He is a member, American Institute of Architects, Technology Club of New York, Delta Kappa Epsilon fraternity and the Masonic order. He is co-author of "Planning Church Buildings," published in 1921. His hobbies are work and billiards.

MESERVE, RICHARD EARLE (1889-92) IV

535 Main Street, Grand Junction, Colorado.
Mining Engineer.
Born, March 21, 1871, Norfolk, Virginia.
Married, December 26, 1901, Lola Eudora Price. Children, Betty E. A., Frederick A.
Home, 326 North 8th Street, Grand Junction, Colorado.

"AFTER Tech, came West to grow up. Found architecture unsuited to the state of civilization attained in these parts. A grind at Tech, except in Heating and Ventilation, my first and only job was with the Smead Warming and Ventilating Company of Denver and San Francisco. The panic of '93, a blessing in disguise, left me stranded bodily in the Rocky Mountains; finally I became intrigued by the vast volumes of mineral resources here exposed, which are calling for a great institution of learning to establish a branch research laboratory on the showing of hydro-carbons and earths alone. I worked into the two staples of the earth—land and water; and so since the national recognition of this great Western problem—irrigation, I have found my calling. Have been engaged several months on an irrigation project under the 'Carey Act' for which Congress has passed an act opening this former Ute Indian Reservation to the provisions of the Act." "Great is Roosevelt. May his shadow increase. Tech training was an inoculation of industry."

"My accomplishments are three—a charming wife, a daughter cultivating her voice at Northwestern University, and a son studying animal husbandry at University of Wisconsin."

He has written "Oil Shale in Colorado." He is a member, Mesa Lodge, No. 55, A.F. and A.M. Farming is his hobby.

MEYER, GUSTAV JULIUS (1889-92) IV

No information.

MAINE

BATH: F. W. Baker, C. E. Paine.
BIDDEFORD: E. E. Blake, Mrs. Blake.

MARYLAND

TRAPPE: J. R. Speer.

MASSACHUSETTS

BOSTON: F. G. Ashton, Mrs. Ashton, A. F. Bemis, Mrs. Bemis, M. B. Biscoe, Mrs. Biscoe, H. N. Dawes, Mrs. Dawes, G. K. Dearborn, E. D. Densmore, F. W. Fabyan, Mrs. Forthingham (daughter), F. H. Fay, Mrs. Fay, W. S. Forbes, Mrs. Forbes, H. A. Gilson, Mrs. Gilson, G. B. Glidden, Mrs. Glidden, W. H. Graves, Mrs. Graves, E. I. Leeds, Mrs. Leeds, G. L. Mirick, Mrs. Mirick, H. A. Morss, Mrs. Morss, Edward Page, Mrs. Page, L. C. Page (son), A. S. Pevear, Mrs. Pevear, J. H. Reed, Prof. C. M. Spofford, C. W. Taintor, L. B. Vining, S. P. Waldron, Mrs. Waldron.
BROOKLINE: H. Gilmore, Mrs. Gilmore.
CAMBRIDGE: Prof. S. A. Breed, Prof. E. Kenison, R. D. Reynolds.
EAST WEYMOUTH: C. M. Taylor.
FALL RIVER: R. H. Beattie, Mrs. Beattie.
FITCHBURG: F. N. Dillon, Miss Dillon, R. N. Wallis, Mrs. Wallis.
FRAMINGHAM: A. L. Kendall.
HOLYOKE: P. M. Lynch, Mrs. Lynch.
LYNN: Frederic B. Abbott, Mrs. Abbott.
MALDEN: F. D. Smith.
MARLBORO: Dr. Albert R. Beddall, Mrs. Beddall.
MELROSE: E. S. Page, Mrs. Page.
PEABODY: W. D. King, Mrs. King.
SOUTH BRAINTREE: C. R. Walker, Mrs. Walker.
SOUTH FRAMINGHAM: W. E. Evans, Mrs. Evans.
WABAN: W. F. Lamb, Mrs. Lamb.
WATERTOWN: C. F. Hopewell, Mrs. Hopewell.
WEST ROXBURY: J. B. Blair, Mrs. Blair.
WORCESTER: H. M. Latham, Mrs. Latham.

MICHIGAN

DETROIT: J. C. Hawley.

MIRICK, GEORGE LANDON (1889-93) II I

200 Devonshire Street, Boston, Massachusetts.
Member of firm, Fay, Spofford & Thorndike.
Born, August 6, 1867, Malden, Massachusetts.
Married, September 8, 1892, Mary Derby. Children, George D., Laurence P., Forest C., Warren M., Eleanor (deceased). Grandchildren, four.

"BEFORE entering the Institute, served a regular apprenticeship of four years as carpenter; worked college year vacations as chief of party on sewer construction, Town of Everett, Massachusetts; two years, acting town engineer of Everett, Massachusetts, designing and supervising construction of all the different branches of work incidental to a town of 15,000 people (sewers, water works, roads, etc.); two years, assistant city engineer of Malden, in charge of sewer construction as well as the preparation of sewer assessment plans; eleven years contractor: building sewers, roads and water works, industrial buildings and houses and land development schemes in and around Boston; four years, superintendent on reinforced construction for Eastern Concrete Construction Company and Aberthaw Construction Company on warehouses and coal pockets, etc.; four years, construction engineer for the International Railways of Central America and for the United Fruit Company at Guatemala and Panama, C. A. I took the jungle as it existed at the time, filling in the land, floated lumber ashore from vessels, built construction camps, all the incidental work, water supply, etc., built a reinforced concrete wharf 132 x 640 feet long, a line of railroad, installed stone crushing plant with a capacity of 20 cars a day, built reinforced concrete warehouses and round house and electric power plant, using native and Jamaican labor; about 600 were required; a $3,000,000 project. For one and one half years, ranched it in Western Oregon; with Monks & Johnson as resident engineer of the $3,000,000 Victory Plant at Buffalo; with Fay, Spofford & Thorndike as resident engineer in charge of the construction of the Boston Army Supply Base, a $25,000,000 project."

In 1922 he became a member of firm of Fay, Spofford and Thorndike, consulting engineers.

At present (1924) temporarily resident at Cincinnati, Ohio, as general manager for The Mariemont Company upon the building of the new town of Mariemont, Ohio.

He is a member of American Society of Mechanical Engineers, Boston Society of Civil Engineers, Engineering Society of Western Massachusetts; Mt. Vernon Lodge, F. & A. M., Tabernacle Chapter, Melrose Council & Beauseant Commandery, all of Malden; Aleppo Temple of Boston; Savin Hill Yacht Club, National Rifle Association, University Club of Cincinnati.

His hobbies are fishing and shooting, and book collecting on these subjects, and the ancient American civilization, especially the Maya civilization of Central America.

MITCHELL, BENJAMIN MERWIN II G

90 West Street, New York City.

Consulting Engineer to Manhattan Rubber Manufacturing Company, Passaic, New Jersey.

President, the Conveying Weigher Company of New York.

Born, October 24, 1871, South Britain, Connecticut.

Married, October 15, 1903, Katherine Guthrie. Children, Harriet G. and Guthrie.

Home, 244 Lafayette Avenue, Passaic, New Jersey.

FOR several years after graduating, Mitchell held the position of mechanical engineer for the Manhattan Rubber Manufacturing Company of Passaic, New Jersey. In 1898, he made a trip to South Africa in the interest of this company, spending more than a year on the trip. He returned to Johannesburg, South Africa, after a brief stay in this country, as engineer for Fraser and Chalmers, Ltd., England, and representative of the Robbins Conveying Belt Company of New York. In 1904, he was made assistant general manager of Fraser and Chalmers, Ltd. Mitchell joined the British Army in Cape Town in 1900; was made Captain of Engineers in 1901, holding that commission until the close of the Boer War in 1902. He returned to this country in 1906. He is a member of the American Society of Mechanical Engineers; American Society of Electrical Engineers; Institution of Mechanical Engineers, London; South African Association, Johannesburg, South Africa; Engineers' Club, New York; New Club, Johannesburg, S. A.; Kimberley Club, Kimberley, S. A.; also president, Passaic City Club, Passaic, New Jersey. His hobbies are good automobiles and the 19th hole.

*MITCHELL, GEORGE MacKENZIE (1889-92) II

Died September 9, 1892.

MOODY, ARTHUR MONROE (1889-92) V

76 Pearl Street, Boston, Massachusetts.

Assistant Treasurer and Director, Wetmore-Savage Company.

Married, October 8, 1903, Elizabeth Johnson Gray. Children, William Gray, Arthur Monroe, Jr.

Home, 43 Garrison Road, Brookline, Massachusetts.

FOR a few years after leaving the Institute, Moody was in the employ of B. S. Snow and Company, Boston, wholesale dealers in fish and canned goods, following which he became connected with the Wetmore-Savage Company, electrical supplies, of Boston, and is now assistant treasurer and director of that company.

Ten years ago when he was living in Newburyport, he wrote:—

"The problem which has engaged my entire attention has been to keep the wolf from the door. No amusements, no recreation. Since leaving Tech, I have travelled approximately 480,000 miles, namely, 12,000 rides of 40 miles each, between Newburyport and Boston."

He has not kept up his schedule of travelling, as he is now living in Brookline.

Notwithstanding that he reported no recreations, Moody acknowledged that he was a member of several varieties of yacht clubs, and has often been seen in recent years sailing his large sloop along the North Shore.

MOODY, EDNA WADSWORTH (1890-92) V

Born, Chelsea, Massachusetts.

Married, August 20, 1895, Herbert Raymond Moody (Tech '92).

Home, 63 Hamilton Terrace, New York City.

"To my Classmates of 1893:

"A follow-up note has arrived; again I am asked for a comprehensive story of what I have done for the last thirty years.

"So be it—although a co-ed!

"Chemistry lured me to Tech. Although Leo Pickert spent many perplexed moments by my laboratory desk asking me why I came to Tech and what good it did the men to have girls there, I have never regretted going.

"When I left Tech, I could analyze as well as any man in the class—asking Mr. Pickert's pardon—But I did not go ahead and analyze. Why? Because in those days a girl was not supposed to

work, unless her father could not support her. So I stayed at home, being a young lady.

"In 1895, I married a man I had known since I was a youngster—after twenty-seven years, I pronounce him adorable! and he was Tech '92—an inert class compared to ours. I wonder if you remember him—Herbert Moody—as my brother-in-law says, 'he is a pippin.'

"We were a college professor. I must say 'we' because whatever Mr. Moody has been, I have identified myself with the slightest move on his part. And we moved first to Winsted (Connecticut) —and then to New York City to get our Ph.D. at Columbia. It may be attached to his name, but I was always about listening and taking interest. And then we were at Hobart College, Geneva, New York, for four years. Ever since, we have been at the College of the City of New York—and that is where we are now. We are at the head of one of the biggest chemical departments in the world. I can be a little chesty about it, as I feed the man a healthy vegetarian diet—and no one is more physically fit.

"That is the outer tale of my thirty years.

"In 1909, My Professor found himself swamped with work. At that time, we could not afford to hire a private assistant; I had a brilliant inspiration—why wouldn't I do? Do? I would do wonderfully, but would I like it? Yes, I would love it.

"And so I reviewed my quantitative work, and analyzed enough samples to last students for years. And the next year I worked on problems for a text-book, and helped write it. And the next year, there I was right on tap, but My Professor's duties were so arduous, they would not permit time for getting me started on some problem. Just at that time pressure was brought to bear for me to be president of the Woman's Suffrage Study Club, and it seemed best for me to undertake it.

"Up to 1905, I had just an average life—social—some study—and a beautiful time. Something seemed to happen to my inner life about then. I was an agnostic and I began to wonder if there was not more to existence than appeared on the surface. I began then to read and think and study and examine to see if I could not get some satisfactory slant on the ultimate meaning of life here on earth.

"I remember in 1915, we decided we had been selfish at our summer home and decided then to give one day a week to the young people in our little town. For eight years, I have written a lesson a week and my Club members have answered an examination on my

letter weekly. We have become more and more enmeshed in the lives of these neighbors, and more and more able to share with them whatever we have worth while. Our ideal is to produce a set of young people with aspirations, and equipped to earn a good living.

"My great quest carried through these years has at last crystallized in a book called *We Are Here—Why?* It is published by Marshall, Jones Company of Boston. And if this volume carries any weight, it is due to a large degree to the scientific training I had at that dear old Tech. I pity people who have studied no science. How can you find out anything about a working Mind if you are ignorant of the works?

"And so—Classmates—Men of 1893—while you have been engaged at your several specialties, I have bent my best energies to the understanding of the psychical law underlying physical manifestation. And believe as you like, cause and effect are equally at work in the inner man, yes, in every phase of existence.

"Greetings and good luck!"

Mrs. Moody spent the summers of 1897, 1899, 1902 and 1904 in Europe. She is a member of the M.I.T. Women's Association.

*MOORE, ARTHUR LEWIS (1889-92) II

Died May 15, 1905—age 34 years, 9 months.

MOORE, GEORGE (1889-90, 1893-95) III

28 Dock Street, Yonkers, New York.
President, Pure Water Service Corporation.
Born, July 14, 1869, Fond du Lac, Wisconsin.
Married, May 3, 1898, Lulu Edna Hoag.
Home, Croton-on-Hudson, New York.

"ON leaving (in 1895) 'Tech', took position of assistant chemist at the copper works of the Consolidated Kansas City Smelting and Refining Company at Argentine, Kansas. Was advanced to chemist, then to assistant superintendent in charge of the roasting department; in 1897, was sent to Salt Lake City and took charge of the company's sampling and assay office. In 1900, had typhoid; sick about a year. Then took management of gold mines in Utah, where invented cyanide-filtration method known as 'Moore Process'. It was adopted in this country, Australia, Mexico, Canada and Japan.

In 1904, bought control of Consolidated Light, Power and Ice Company of Joplin, Missouri. In 1908, sold this property to Henry L. Doherty & Company, New York. Travelled in Europe, 1904, and 1910-11. Filtration in metallurgy led to water filtration. Am now in latter business. Tech training gave me my first job and subsequent advancements."

He is a member, Engineers' Club, New York; American Institute of Mining, Metallurgical Engineers and Chi Phi fraternity.

MORRILL, HARLEY WINSLOW (1889-92) I

Ludlow, Massachusetts.
Agent, Ludlow Manufacturing Associates.
Born, March 25, 1872, Penacook, New Hampshire.
Married, June 5, 1895, Lillian L. Sargent. Child, Mildred M. (Cummings). Grandchild, Edward M. Cummings.
Home, 1 North Street, Ludlow, Massachusetts.

AFTER leaving the Institute in 1892, Morrill was employed in the engineering department of the Pennsylvania Railroad from March, 1892, to June, 1893. From June, 1893, to September, 1894, he was assistant engineer in the city engineer's office at Concord, New Hampshire. He then entered the maintenance of way department of the New York, New Haven and Hartford Railroad at South Framingham, Massachusetts, where he remained until June, 1901, when he took a position with the Ludlow Manufacturing Associates, Ludlow, Massachusetts. He was superintendent and general superintendent until January, 1916, and since then has been agent for the company. Following in the footsteps of Bemis, Morrill has had a large share in establishing for his company, a jute mill at Calcutta, India, which accounts for the two business trips which he has made around the world. It is of interest to note that the extensive buildings of this Indian plant were erected under the plans and direction of the well-known Technology Engineer, Charles T. Main, '76. During the first year of the World War, he was chairman, Division No. 7 Draft Board. Morrill has come into very slight contact with '93 men since leaving Tech. He is a member, American Society of Mechanical Engineers; Oxford Country Club, Ludlow Country Club, Rotary Club and Masonic fraternity. His amusements and hobbies are golf and automobiling—and his grandson.

MORSE, CHARLES FRANCIS (1889-92, 1893-94) I

Southampton, New York, Lock Box 877.

Civil Engineer. Assistant Engineer, New York State Highway Department.

Born, September 29, 1870, Milford, New Hampshire.

Married, September 29, 1896, Florence M. Heald. Child, Gregory S.

Home, Southampton, New York.

"SINCE leaving Tech, have been engaged as civil engineer, mainly on construction work. For fourteen years, I was assistant engineer with the Metropolitan Park Commission, most of my work being on the construction of the parkway system north of Boston. For five years, I was engaged as section engineer by the New York City Board of Water Supply on the construction of the Catskill Aqueduct. For the last nine years have been building concrete roads on Long Island for the New York State Highway Commission."

He is a member of the American Society of Civil Engineers, Boston Society of Civil Engineers and of the Municipal Engineers of New York City.

MORSS, HENRY ADAMS VI G

201 Devonshire Street, Boston, Massachusetts.

Treasurer, Simplex Wire & Cable Company, Simplex Wire & Cable Company of California, Simplex Electric Heating Company, The Morss & Whyte Company.

Born, August 30, 1871, Boston, Massachusetts.

Married, March 10, 1909, Edith Sherman. Children, Henry A., Jr., Sherman, Wells, Eleanor, Virginia.

Home, 24 Charlesgate East, Boston, Massachusetts.

"OUR Commencement was on Tuesday, May 30, 1893. The following Monday, I went to work in the factory of Morss & Whyte and have been connected with that concern, and others which have developed from it, ever since. In 1918, I became treasurer of the Simplex Wire & Cable Company, Simplex Wire & Cable Company of California, Simplex Electric Heating Company and The Morss & Whyte Company and still hold those positions. In 1920, I became treasurer of the Old South Society in Boston, and in 1922, president of the Boston Children's Friend Society.

"My interest in the Institute of Technology has always been maintained. I was president of the class of '93 for two years; have

been a member of the Alumni Council for several years, and was president of the Alumni Association in 1918-19; served one five-year term as a member of the Corporation and am now serving a second term.

"While I have taken considerable pleasure in travelling, including several trips to Europe and a trip around the world in 1909, my principal recreation has been yachting and I have owned some fifteen boats and yachts of various sizes and types. While in Japan on a trip around the world, I chartered a boat and cruised about 600 miles in the Inland Sea of Japan, and this was the most interesting cruise I have ever had. I have cruised along the Atlantic Coast from New York to Bar Harbor more or less each year and made one cruise to Halifax, Nova Scotia. I have taken part in a good many yacht races, but in racing have been more particularly interested in so-called ocean races over longer courses and have sailed a good many of these, including two races to Bermuda, both of which I won in my class."

During the war, the Simplex Wire and Cable Company furnished material for the Navy and signal corps of the Army. Morss is president, Boston Children's Friend Society; assistant treasurer and member of corporation, Massachusetts Institute of Technology; trustee, Morss Real Estate Trust; treasurer and director, Simplex Wire and Cable Company of California; treasurer, Old South Society in Boston. Member, American Institute of Electrical Engineers, American Society of Mechanical Engineers; Eastern Yacht Club, Corinthian Yacht Club of Marblehead; New York Yacht Club, Union Club, University Club and Exchange Club of Boston. Yachting is his principal amusement.

Morss was the first member of the Class to become a term member of the Corporation of the Institute.

He is responsible for the series of 30th Reunion notices.

MOTT-SMITH, HAROLD MEADE (1889-93) IV

1 Bedford Road, Schenectady, New York.

Artist.

Married, June 23, 1906, Jenny Ormsby Yates. Children, Harold Meade, Jr., Kenneth Ormsby, Geoffrey Arthur, Constance Theodora.

Home, 1 Bedford Road, Schenectady, New York.

In 1913, Mott-Smith wrote: "I went to Paris in the fall of 1893, to study art; returned to this country in 1896 to be married; thence

to Paris again to continue studies. I returned in 1898, went to Honolulu, Hawaii, engaged in trust and investment business, made a pot of money; went back to Paris in 1902, to continue art studies, but became interested in a process for drying milk; took up laboratory work to prepare as milk engineer; built and operated a factory in Southwestern France, using superheated surface process (Hatmaker-Just). Learning of the Merrill-Soule Spray process in this country, I returned, joined that firm, went to England in 1907 in their interests to take charge of the factory of the England subsidiary company. I was recalled to Hawaii, in 1909, by my brother, who is Secretary of State for that territory. I severed my connection with the Merrill-Soule Company, also with dry milk, and returned to pursuit of art, in which I am at present engaged. I have had a great time knocking around the world. Have always been an ardent lover of music, played the cello, belonged to orchestras in France, England and here. At present, I play in the Troy Orchestra and the Albany Symphony. My chef d'oeuvre is the production of a son who is a born mathematician and who knows more chemistry at 16 than Tommy Pope ever knew. He will be ready to begin the chemical course with the class of 1918."

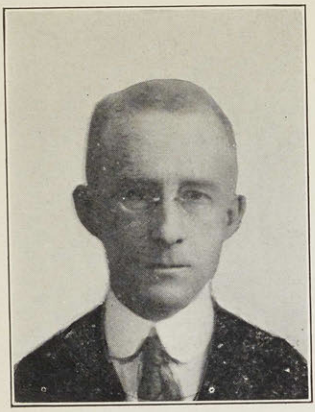
MOULTON, ALBERT SWEETSER; A.B. (1889-92) V
408 Atlantic Avenue, Boston, Massachusetts.
Examiner, United States Customs Service, Appraisers Stores.
Home, Lynnfield Centre, Massachusetts.

WAS a student at Boston University from 1893 to1895, graduating in the latter year with the degree of Bachelor of Arts.

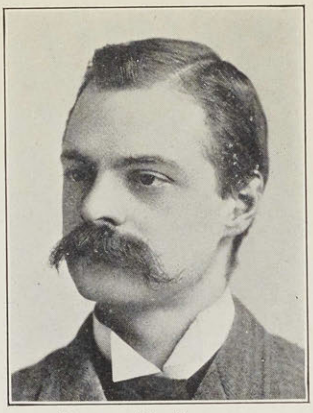
*MOULTON, RAYMOND EDWARD (1889-94) II
Died in 1907.

RAYMOND EDWARD MOULTON gave up his work a few years after leaving the Institute on account of serious illness and returned to his family in France and died in Paris, in 1907.

MURRAY, ARCHIBALD; A.B., B.S. (1889-90)
Box 549, Cornwall, Ontario.
Assistant Engineer, Department of Railways and Canals, Dominion of Canada.
Born, March 8, 1871, Yarmouth, Nova Scotia.
Home, Yarmouth, Nova Scotia.

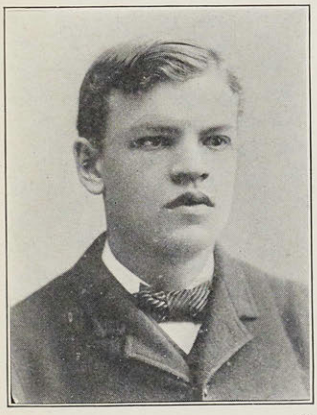


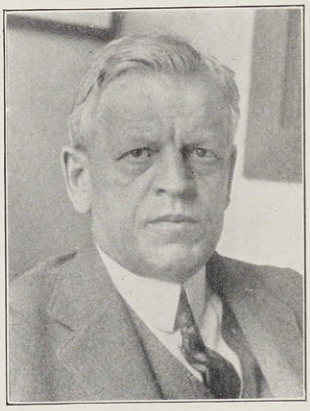
Archibald Murray



Henry W. Nichols

Walter H. Norris





Charles L. Norton

NEW YORK

ALBANY: Dr. A. B. Wadsworth.
BUFFALO: W. G. Houck, M. Gorham.
NEW YORK CITY: G. T. Blood, J. A. Emery, Mrs. Emery, Prof. D. D. Jackson, F. D. Richardson, J. I. Solomon, A. C. Thomas, P. H. Thomas.

NEW JERSEY

MONTCLAIR: J. F. Hinckley, Mrs. Hinckley.

RHODE ISLAND

WOONSOCKET: A. B. Edwards.

VERMONT

MIDDLEBURY: Prof. E. C. Bryant.

WISCONSIN

FONTANA: M. T. Barbour, Mrs. Barbour.

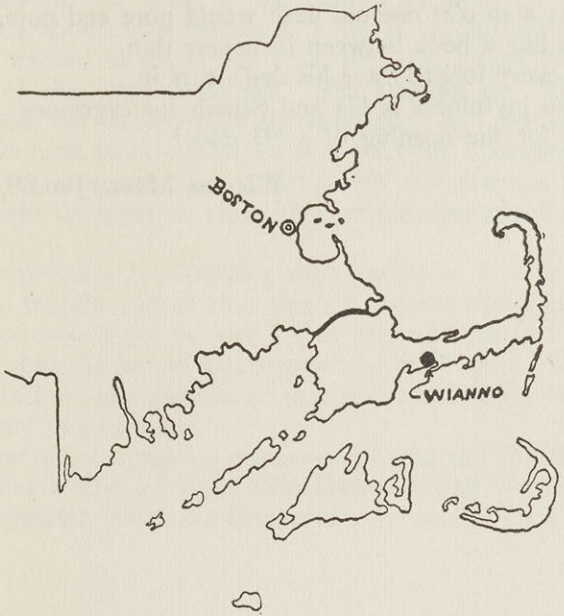
FOREIGN COUNTRIES

CANADA

MONTREAL, P. Q.: C. E. Buchholz, Mrs. Buchholz.

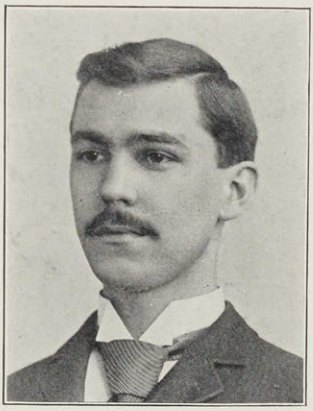
MEXICO

MEXICO CITY: Charles V. Allen, Mrs. Allen.

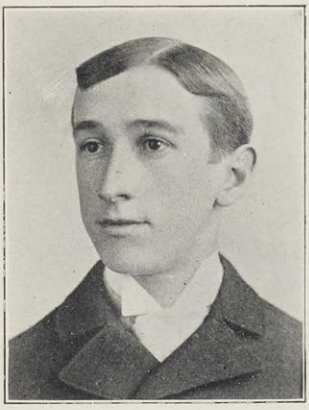


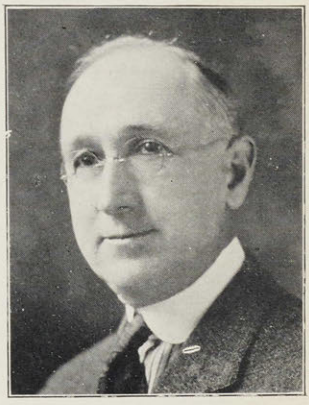
Edward Page

Cecil E. Paine



Joseph Y. Parce, Jr.





Oren E. Parks

"I TAUGHT in secondary schools, United States of America, 1896-1903. Then I was in the employ of the engineer of construction, Canadian Pacific Railway, until 1906. In 1908, I entered the drafting office of the Canadian Northern Railway and remained with that company until 1915. During the years 1916-18, I was employed at Woolwich Arsenal, England. From May, 1920, to the present time, I have been with the Department of Railways and Canals, Canada."

He graduated from Arcadia College in 1894, and from Harvard College in 1896. He is an associate member, Engineering Institute of Canada, and Junior, Institution of Civil Engineers, London, England. He is still unmarried. His hobby is photography.

NELSON, JAMES MARSTON (1889-92) I

NEWMAN, ANDREW PARKER, JR. (1889-92) I
62-70 First Street, East Cambridge, Massachusetts.
Secretary, Johnson Marble Company.
Home, 130 Upland Road, Waban, Massachusetts.

IN 1898, salesman of structural steel work at 276 Franklin Street, Boston; 1909, salesman at 129 Malden Street, Boston.

NICHOLS, HENRY WINDSOR XII G
Field Museum of Natural History, Chicago, Illinois.
Geologist.
Married, April, 1895, Anna L. Giles. Child, Louise Anna.
Home (1909), 5465 Madison Avenue, Chicago, Illinois.

HE was assistant instructor in geology at M.I.T. one year after graduating, when he then became curator of economic geology and later assistant curator of geology at the Field Columbian Museum in Chicago.

"Since coming here, I have been pretty steadily occupied with building up a collection of ores and useful minerals, attempting to devise better means of exhibition than have been heretofore employed, with the object of securing, if possible, the most useful and instructive exhibit of this kind in existence. Some opportunity for research has presented itself, and in this line I have made a detailed study of the ores and some of the rocks of Columbia; of the nature of concretions; of the origin of nitrates in cave earths and have made chemical analyses of numerous meteorites. I have made

trips usually of several months' duration through the South Appalachian Mountains, the mountains of Arkansas, the lower Mississippi Valley, and parts of Wyoming and the Black Hills to study the ores and mining conditions there, and collect specimens. My amusement I take in a little gasolene launch on the Calumet River."

He was honorary special agent, department of mines and metallurgy, U. S. Commission to the Paris Exposition. He has written extensively on geological subjects for many scientific publications. He has delivered various lectures in the Field Museum lecture course, in the lecture course of the Chicago Academy of Science, and in the various lecture courses given by the *Chicago Record.* He is a member of the American Institute of Mining Engineers, the Chicago Academy of Science, the N. W. Association of M.I.T., and the Independent Order of Foresters.

NOBLE, WALTER EDWIN (1890-91) I

City Hall, Fall River, Massachusetts.
Assistant City Engineer, Fall River, Massachusetts.
Born, December 2, 1870, Newton Center, Massachusetts.
Married, April 23, 1910, Mary Frances Gifford.
Home, 168 Barnaby Street, Fall River, Massachusetts.

NOBLE'S experience since leaving the Institute has been principally in state and municipal work, largely in connection with sewer, water supply and subway problems. For two years, he was inspector and in charge of field party on sewer construction in Newton, Massachusetts; for the following four years, assistant in office and field with Rice and Evans, civil and hydraulic engineers of Boston; for some months, assistant in charge of surveys, New York Rapid Transit Commission; then, resident engineer, in charge of construction of reservoir and main, of the Kingston, New York, water works. In 1897, engineer inspector on concrete construction, Wachusett Aqueduct, Massachusetts Metropolitan Water Works; in 1898, made studies and estimates for the Massachusetts Metropolitan Sewerage Works. Since October, 1898, Noble has been in Fall River, Massachusetts; until July, 1902, assistant engineer, Reservoir Commission, City of Fall River, as resident engineer in charge of surveys, hydraulic gaugings and studies of local water supply improvement; from July, 1902, to July, 1907, special assistant engineer, city engineer's department on water supply, parks and other works; for

the following six years, assistant engineer to the city engineer on water supply and routine work. From that time until the present, assistant city engineer, having general supervision under the city engineer. During the war, he assisted in the work of the local Army Draft Board.

Of what he has accomplished he says he has "done the day's work," and that that has brought less contact with '93 men than he could wish. He is an associate member of the American Society of Civil Engineers, a member of the Boston Society of Civil Engineers and of the Fall River Yacht Club.

NOBLIT, JOSEPH CURTIS (1889-92) VI

110 West 34th Street, New York City.
President, Philadelphia Fire Retardent Company, Inc.
Born, September 10, 1871, Ogontz, Pennsylvania.
Married, July 4, 1901, Mary Elizabeth McGinley.
Home, 10 North Nashville Avenue, Ventnor, New Jersey.

HE has held positions in the shops of the William Sellers Company, Philadelphia; in the engineering department of the Cambria Iron Company; and in the construction department of the Yale & Towne Mfg. Company. Left the latter position to go into business for himself. Sold out and took position with the Hallwood Cash Register Company as salesman. Appointed sales agent January 1, 1903.

He is interested in all out-door sports.

NORRIS, WALTER HENRY (1888-93) I

238 St. John Street, Portland, Maine.
Bridge Engineer, Maine Central Railroad.
Born, March 6, 1870, Charlestown, Massachusetts.
Married, July 6, 1897, Effie L. Shapleigh. Children, Elizabeth, Katherine, Edward J., Emerson S.
Home, 24 Glenwood Avenue, Portland, Maine.

"AFTER leaving the Institute, I worked in the engineering department of the Boston and Maine Railroad for seventeen years, all of the time with the bridge engineer. Then in 1910 I moved to Portland and became the bridge engineer of the Maine Central Railroad, succeeding B. W. Guppy of the Class of '89. For the past three years I have been a member of the Engineering Board for the Portsmouth Memorial Bridge. This bridge was built by the States of Maine and New Hampshire and the Federal Government. The other

members of the Board are Ernest H. Brownell, C. E. C., U. S. N., Class of '90, and William A. Grover, Class of '97." He is an associate member of the American Society of Civil Engineers, and a member, American Railroad Engineers Association, American Railway Bridge and Building Association. His hobby is gardening.

NORTHEY, WILLIAM EZRA (1889-90)
106 Washington Street, Salem, Massachusetts.
In insurance and real estate business.

NORTHEY has been in the same business at the same location since before the 1898 catalogue was published.

NORTON, CHARLES LADD VI G
Massachusetts Institute of Technology, Cambridge, Massachusetts.
Professor, M.I.T.: Head of Department of Physics; Member of Administrative Committee; Director, Division of Industrial Co-operation and Research; Director, Research Laboratory of Industrial Physics. President, Asbestos Wood Company; President, Asbestos Shingle Company.
Born, December 11, 1870, Springfield, Massachusetts.
Married, September 24, 1895, Frances Torrey. Children, Frederick Harwood, John Torrey, Dorothy, Charles L., Jr., Margaret, Frances.
Home, 5 Acorn Street, Boston, Massachusetts.

IMMEDIATELY upon graduating from the Institute, Norton was appointed an assistant in the physics department. In 1895, he was made instructor in heat measurement, to which subject he has especially devoted his attention and which course he has developed to a high degree of efficiency. He was made assistant professor in 1901, and associate professor in 1905. Throughout his teaching career, Norton has carried on a great variety of experimental researches for the Factory Mutual Insurance Company of New England, and for other parties upon such subjects as materials used for steam pipe covering, the diffusive effect upon light of ribbed and striated window glass, upon the corrosion of iron and steel and means of preventing same, upon the fuel value of peat or marsh-mud, and upon the development of commercial apparatus for testing the thermal efficiency of fuels. He has invented a fire-proof wood made from short fibre asbestos.

He writes:

"I credit to my Tech training whatever success I have made or may make in science or industrial work.

" 'What your contact has been with other '93 men since leaving Tech.' Meet them everywhere I go, but especially at Cambridge and never fail to find the meeting a source of pleasure. Since associated with the Industrial Division I meet and hear from many more of our '93 men.

" 'An outline of what you have accomplished'. Not much, but I've had a mighty fine time doing it. Have tried to hold up one corner of the Institute and keep some people and some property from burning up unnecessarily." All three of his sons have attended Tech.

Among the industrial concerns with which Prof. Norton has been associated either as an officer or director are: Norton Laboratories, Asbestos Shingle Company, Asbestos Wood Company Fibre Corporation. He has devoted the greater part of his time to scientific study, principally in the field of fire prevention, heat, and heat insulation. He was in charge of the insurance engineering experiment station maintained in Boston by several of the large fire insurance companies and was one of the first men to advocate the use of Portland Cement concrete for fire-proofing.

Prof. Norton was consultant for the Museum of Fine Arts on matters of acoustics and problems of illumination. He was also among the first to advocate the use of X-rays for medical diagnosis.

When there was a demand for metallic magnesium during the war, Prof. Norton devised a process and constructed a plant for producing this necessary mineral, for which the United States had been almost wholly dependent on Germany. During the war, also, he was advisor to the naval consulting board, the inventions committee of the War Department and the Signal Corps.

He has delivered many lectures and written many articles on physics, fire protection, refractories, etc. He is a fellow, American Academy of Arts and Sciences; American Physical Society, American Chemical Society; member, American Society Mechanical Engineers, American Association for the Advancement of Science, American Society of Testing Materials, Society for the Promotion of Engineering Education, Concrete Institute and American Ceramic Society; and the Annisquam Yacht Club. The theatre and racing small boats are his recreations.

NORTON, FRANCIS COBB IX G
Rockland, Maine.
Manager, Francis Cobb and Company.

NORTON has been located at Rockland, Maine, since graduation, with the Cobb Lime Company and, for a good many years, manager of Francis Cobb and Company, wholesale grocers.

NOYES, EDMUND HORATIO (1890-93) VII
18 Tremont Street, Boston, Massachusetts.
Vice-President, Palm Beach Company Associates.
Home, 144 Franklin Street, Braintree, Massachusetts.

PAGE, EDWARD (1889-92) VI
111 Devonshire Street, Boston, Massachusetts.
Vice-President, New England Fuel and Transportation Company, New England Coal and Coke Company.
Born, October 10, 1872, Newton, Massachusetts.
Married, April 30, 1903, Olga Bendler. Children, Louise M., Edward, Jr., Loudon C.
Home, 144 Bigelow Road, West Newton, Massachusetts.

IN September, 1892, Page entered the employ of R. W. Hildreth and Company, Inspecting Engineers, New York City, and for eight years inspected iron and steel materials for that company at the various steel plants throughout the United States. He was located in Philadelphia for the following nine years, in commercial life—from 1900 to 1904, with James G. Lindsay and Company, iron and steel factors; from 1904 to 1909, with J. K. Dimmick and Company in the coal business, leaving them for his present connections. He is vice-president of the New England Fuel and Transportation Company, which company in 1917 took over all the property and business of the New England Coal and Coke Company, with the exception of the business of purchasing and selling coal. Page had for some time been connected with most of these organizations as vice-president or in other capacities, and is now also secretary of the Massachusetts Gas Companies. He is a member, American Society of Mining Engineers, American Gas Association; Exchange Club, Brae Burn Country Club, Albemarle Golf Club. For amusement, he plays golf or bridge.

PAGE, EDWARD SAMUEL; A.B., LL.B. (1889-91) III

68 Devonshire Street, Boston, Massachusetts.
Counsellor-at-Law.
Born, September 27, 1871, Melrose, Massachusetts.
Married, June 22, 1898, Susie M. Flint. Children, Dorothy Flint (Mrs. W. A. Dole, Jr.), Frances Hibbard, Priscilla Pyncheon, Edward F.
Home, 270 Porter Street, Melrose, Massachusetts.

LEAVING the Institute at the end of his sophomore year, Page travelled a year in Europe. He then entered Harvard College and was graduated from the academic department with the Class of 1895 and from the law school in 1897. In 1896, he entered the law office of Nason and Proctor, was admitted to the bar in 1897. He immediately opened a law office, being associated with Arthur J. Wellington and under the firm name of Wellington and Page until 1920. Page then became an active member of the firm of M. S. Page and Company, wholesale jewellers, the firm consisting of Howard R. Page and himself, with offices in the Jewellers Building, Boston. Page and Wellington severed their long standing association with regret and Page associated himself with James R. Lowell, a young Melrose lawyer of promise, to carry on the work of the Melrose Savings Bank and the Blackstone Savings Bank, with which institutions he had been identified for many years. Page is trustee of the Melrose Hospital, of the Melrose Savings Bank and of the Melrose Y. M. C. A. He has been an alderman in the City of Melrose, Chairman of the Finance Committee of the Melrose Congregational Church, President of the Melrose Horticultural and Improvement Society, a director of the Melrose Trust Company, a director of the Melrose Y. M. C. A., and member of various local organizations. Page has lived in Melrose ever since he was married in 1898. He is a family man and has had his fun with the wife and the kids. Now the family is getting grown up and as he is pledged "to be better than he used to be," he is about to take up that solace of old age, golf, and hereby challenges any member of the Class of '93 (who has never yet played the game), to a match for the booby prize in 1924. Page has "written no books, delivered no lectures and done nothing to make '93 famous." His war record was just that of an ordinary stay at home. He made a few three minute speeches, served on the Legal Advisory Board, had charge and worked on Bond Selling, Red Cross and "War Chest" teams. His daughter Dorothy graduated from Smith in 1923, and Frances is Smith '24.

PAGE, WILLIAM BREWSTER (1889-91) II

North Leominster, Massachusetts.

Agent, Fitchburg and Leominster Mills of George W. Wheelwright Paper Company.

Born, June 8, 1870, Fitchburg, Massachusetts.

Married, December 10, 1902, Mary H. Huse (deceased); November 27, 1918, Dorothy J. Beeber. Child, Barbara.

Home, 124 Summer Street, Fitchburg, Massachusetts.

WITH the George W. Wheelwright Paper Company of Fitchburg, Massachusetts, since leaving the Institute in June, 1891, Page has been located in Wheelwright, Massachusetts, for three years; in Fitchburg, Massachusetts, for twenty-two years; in Leominster, Massachusetts, for eleven years and in Boston for three weeks in the various capacities of clerk, draftsman, paymaster, superintendent; and director and agent of the company's mills in Fitchburg and North Leominster, Massachusetts, since 1910. He is also a director of the Fitchburg Bank and Trust Company; treasurer, Nashua River Reservoir Company. He was postmaster of Wheelwright, Massachusetts, from 1894-95; secretary, Republican City Committee of Fitchburg, 1901; trustee, Burbank Hospital, Fitchburg, since 1916, Leominster Hospital since 1921. He was a member of the Legal Advisory Questionnaire Board of Fitchburg in 1918. He is a member, Loyal Legion, Engineers Club of Boston and Fay Club of Fitchburg. His hobby is horseback riding.

PAINE, CECIL ERIC G II

2 Federal Street, Bath, Maine.

Chief Engineer and a Director in the Hyde Windlass Company, manufacturers of auxiliary ship machinery.

Born, June 17, 1870, Portland, Maine.

Married, June 20, 1899, Janet S. Sargent. Children, Virginia H., Philip S., Mary E.

Home, 924 High Street, Bath, Maine.

PAINE writes:—"With marine drafting department of the Bath Iron Works, Ltd., for three years after graduation. Left for position with the Hyde Windlass Company in charge of designing and have remained with this company since, in charge as engineer and as one of the managing directors for the past ten years.

"Consider Tech training extremely beneficial. Have met some '93 Tech men, as I have had more or less travelling around, partic-

ularly on this coast, visiting shipyards, selling machinery and looking into engineering problems along this line."

He is a member, Society of Naval Architects and Marine Engineers; Engineers Club of New York, Colonial Club, Bath, Maine, Brunswick Golf Club, Polar Star Lodge, Montgomery-St. Bernard Royal Arch Chapter, Dunlap Commandery of Bath.

PALMER, ALDEN ROBBINS (1889-91) II

3144 Chadbourne Road, Shaker Heights, Cleveland, Ohio.

Married, June 3, 1896, Marion E. Davis. Child, Lawrence Hyde.

HE has been engaged in manufacturing business since leaving the Institute. In 1903, he sold out to a trust and became manager of the Wellington plant of the Pioneer Pole and Shaft Company. He is a director of the First National Bank, Wellington, Ohio, and belongs to the Masons and Royal Arcanum.

PARCE, JOSEPH YALE II G

625 Commonwealth Building, Denver, Colorado.

Director Manual Training, Denver Public Schools.

Born, July 13, 1871, Fairport, New York.

Married, June 27, 1899, Inez L. Taggart. Children, Joseph Yale, Jr., Earle Taggart.

Home, 2057 Fairfax Street, Denver, Colorado.

"WITH American Tool & Machine Company of Boston, 1893-95, on general construction work and designing. With Denver Public Schools, 1895 to date. Equipping power plant and shops, and teaching at the Manual Training High School at various times, mathematics, mechanical drawing and shopwork, 1895-1918. Director of Manual Training Department since 1918, having charge at present of 71 shops and 85 teachers of various kinds of shopwork, printing, and mechanical drawing. I attribute the success of my services, such as it is, largely to the training received at Tech."

He is an associate member, American Society Mechanical Engineers; member, Denver Teachers' Club, Colorado Schoolmasters Club, Colorado Education Association, National Education Association; and a member, Park Hill Lodge, No. 148, A.F. and A.M., and Denver Civic and Commercial Association.

TOAST TO TECH '93

By JAMES RUSSELL LOWELL *and* ALBERT FARWELL BEMIS

What man would live confined with brick and stone,
Imprisoned from the healing touch of air
And soiled with city sootmarks everywhere
When luring stands the friendly hearth and stone,
Wright's "little cottage" none need buy to own?

What man with men would push and altercate,
Using his dried-up brains for sordid ends,
When he can have men like you for friends,
Snatch back the rudder of his undismantled fate
And o'er old happenings muse and speculate?

What man o'er one old desk would pore and pore,
Shut like a book between its covers thin,
For every fool to leave his dog's ears in,
When joyfulness is his and Scotch for evermore
Just for the opening of a '93 door?

Wianno, Mass., June 9, 1923.

PARKER, EDWIN MASON IV G '94

Kensington Park, San Diego, California.
Building Contractor.
Married, November 8, 1907, Mabel M. Spayd. Child, Rachel Elizabeth.

HE was a draftsman with G. Wilton Lewis, Boston, until the winter of 1895. From then until October, 1898, he was engaged in farming and carpentering at West Acton, Massachusetts. From the latter date until October, 1899, he was a building contractor at New Britain, Connecticut. During the next year, he was engaged in retail grain business at West Acton, Massachusetts, and from August, 1900, he was a building contractor at New Britain.

PARKS, OREN ELISHA I G

City Hall, Westfield, Massachusetts.
Superintendent, Public Works Department.
Born, October 26, 1871, Westfield, Massachusetts.
Married, December 29, 1909, Bertha P. Brooks.
Home, Ridgeview Terrace, Westfield, Massachusetts.

UNTIL 1894, Parks was assistant engineer to L. F. Thayer, C.E., town engineer and surveyor at Westfield, Massachusetts. From 1894-1911, he was town engineer of Westfield and engineer for the Westfield Water Works. In the summer of 1894, he was resident engineer of the first strip of Massachusetts State Highway. As engineer of Westfield Water Works, he had charge of the building and designing of dams and extensions. He also designed and constructed a storm water system for Westfield. From 1911 to 1913, general manager of the Woronoco Construction Company, building the Hampden Railroad. From 1913 to 1920, in general contracting work on bridges, highways and real estate development. From 1920, to date, superintendent of Board of Public Works of the City of Westfield, in charge of highway, sewer and waterworks. He served for six years upon the Westfield school committee and is a member of the American Society of Civil Engineers, the Boston Society of Civil Engineers, the New England Water Works Association, the Massachusetts Highway Association, Springfield Commandery Knights Templars, the Westfield Masonic orders, Melba Shrine, Kiwanis and Chamber of Commerce. His hobby is farming.

PARMLY, DALTON (1889-92) III
Rumson, New Jersey.
Farmer.
Born, April 9, 1872, New York City.
Married, February 29, 1912, Lillian E. Briggs. Children, John (2 deceased).
Home, Rumson, New Jersey.

FOR several years after leaving the Institute, Parmly was engaged in the iron and steel business, first at Sharpsville, Pennsylvania, as chemist at Claire Furnace for one year and head chemist at Mabel Furnace for two years; then as chemist for the Illinois Steel Company for one year; and chief chemist for the Wellston Iron and Steel Company at Wellston, Ohio, for three years, and superintendent of furnaces for one year. He then returned to Oceanic, New Jersey, to look after his father's interests up to the time of the latter's death; after which he was engaged in the stock brokerage business in New York City for some time. Even then his hobby was farming on a 250 acre farm, running a dairy which supplied milk to a local creamery. He is now devoting all his time to farming. He has served for six years as councilman for Rumson. He is a member of Lodge, F. and A.M., and Mystic Brotherhood No. 21 (New Jersey). Parmly was a student at Rutgers College, New Brunswick, New Jersey, in 1893, and took special courses at Cornell and Columbia Universities.

*PARSONS, PERCY GROSVENOR (1889-90)
Deceased.

PASTORIUS, CHARLES SHARPLESS (1889-91) IV
Cascade Avenue, Colorado Springs, Colorado.

PATCH, WALTER WOODBURY I G
1323 Santa Monica Boulevard, Santa Monica, California.
Real Estate and Consulting Engineering.
Born, January 19, 1872, Lexington, Massachusetts.
Married, April 5, 1900, Alice W. Walker. Children, Miriam, Dorothy E., Constance E.
Home, 2009 Highland Avenue, Hollywood, California.

FOR six months after graduation from the Institute, Patch was engaged in city and railroad engineering in the vicinity of Rockland,

Maine, and was also resident engineer on sewer construction in Camden, Maine. From January to May, 1894, he was at M.I.T. From 1894 to 1904, he was with the Metropolitan Water Board of Massachusetts, engaged upon experimental work on the flow of water through pipes and aqueducts and over weirs; in charge of preliminary work, designing and construction of reservoirs, dams, filter beds; determination of damages due to diversion of water, computation of yield, flow in sewers and miscellaneous data of water works maintenance, and during the last two years of this time, he was the principal office assistant of the Weston aqueduct department, having charge of drafting, computing, reports, and cement testing. In 1904-05, he was with the engineering department of the aqueduct commission of New York, and in 1905, he entered the United States Reclamation Service as construction engineer in charge of irrigation work. He spent some time at Belle Fourche, South Dakota, where he designed and constructed a storage project, including the building of a large earthen dam 6,500 feet long and 115 feet maximum height. He also designed and constructed aqueducts, filter beds, canals, siphons, tunnels and miscellaneous irrigation works. In 1908, he was engaged in irrigation work at Oreland, California, and in the spring of 1909, was transferred to the Klamath project in Oregon. After nine years with the United States Reclamation Service, Patch was for one year in private practice in San Francisco. On January 1, 1924, after nine years as division engineer for the California Highway Commission in Southern California, with headquarters in Los Angeles, Patch resigned to enter the real estate business in Santa Monica, and is also doing some professional work in a consulting capacity.

During his nine years as division engineer for the California Highway Commission, Patch had direct charge of the design and construction of several hundred miles of hard surface pavement of various types and a number of large bridge projects, including the recently completed San Gabriel River bridge on the Foothill Boulevard in Los Angeles County. Practically all of the pavement through San Bernardino and Riverside Counties on the Imperial Valley lateral, the grading and paving of the Ridge Route between Los Angeles and Bakersfield and the completion of the paving through Mint Canyon to Palmdale and Mojave was carried on under his direction. Expenditures for construction in Division VII during the time Mr. Patch was in charge amounted to more than $12,000,000. Besides the ridge route, other notable achievements to

his credit include the recently completed pavement along the Coast between Santa Monica and the Rindge Ranch and the planning of the heavy construction now underway between Point Mugu and Sycamore Canyon in Ventura County. During the war, he made various reports upon special roads for war uses in Southern California.

He has contributed numerous articles on civil engineering to the technical press. He is a member, American Society of Civil Engineers, American Association of Engineers, of the Los Angeles City Club. His hobby is duck and quail shooting—and he has motored about 200,000 miles in California during the past ten years in connection with his business. He meets Willis Knowlton, '93, frequently, as he is sewerage engineer of the City of Los Angeles. He says a good word for Tech training—that it is most excellent in developing latent power of analysis and deduction in connection with technical problems.

*PAYNE, ALBERT BRONSON, JR. (1890-92) III
Died in 1895.

PEABODY, WILLIAM WELCOME (1889-91) I
661 Westminster Street, Providence, Rhode Island.
Deputy Chief Engineer, Providence Water Supply Board.
Born, December 24, 1869, Gilead, Maine.
Married, August 22, 1895, Lily A. Brown. Children, Walter R., Mary A., Arthur W.
Home, 18 Everett Avenue, Providence, Rhode Island.

1891-1895, inspector of sewer and street construction, Newton, Massachusetts; also on contract, estimates, etc.; 1895-96, with city engineer, Brockton, Massachusetts, as inspector of sewer construction, supervision of macadam road construction, granite paving, etc.; September, 1896-June, 1897, resident engineer, Massachusetts Highway Commission, in charge of building highway at Tyngsboro, Massachusetts; June, 1897, to January, 1898, engineer inspector, Metropolitan Water Board, Boston, Massachusetts, on construction of Wachusett aqueduct, principally on masonry, and on final estimates for three sections; January, 1898-March, 1903, with Proprietors of Locks and Canals, Lowell, Massachusetts, on survey work, water measurements, street and lot layouts, drafting, etc.; March, 1903-January, 1904, principal assistant engineer, Commission on Addi-

tional Water Supply of New York City, in charge of division office on Long Island (under department engineer); April to November, 1904, assistant engineer with New York State engineer and surveyor, in charge of state road construction; November, 1904-April, 1906, assistant engineer, Topographical Bureau, Borough of Queens, New York City, principally on maps of street systems; April, 1906, to May, 1915, with Board of Water Supply, New York City, as assistant engineer in charge of executive office, Southern Aqueduct Department, until May, 1909; from that date to April, 1910, division engineer, White Plains Division; April, 1910, to May, 1915, senior division engineer, in charge of executive office. May to September, 1915, Correction Department, New York City, in charge of construction of boys' reformatory at New Hampton Farms, New York City. September, 1915, to date, deputy chief engineer, Providence Water Supply Board. He is a member, American Society of Civil Engineers, Municipal Engineers of New York City; New England Water Works Association, Providence Engineering Society. He bowls, plays tennis and attends ball games when possible.

*PEASE, EDWARD GARDNER (1889-91) II
(Deceased).

WE have no date of the death of Edward Gardner Pease. In 1909, he was with the Buckeye Iron and Brass Works at Dayton, Ohio, manufacturing cotton and linseed oil machinery, tobacco cutting machines, and full line of brass goods for engine builders and steam fitters. He wrote for the 1909 Catalogue:—

"The only thing that would be of any interest is a trip I took to Russia in 1902. In that year, two representatives of the Ministry of Appanages, which has charge of all of the estates of the czar and all of the royal family of Russia, came to this country to purchase the machinery for a complete cotton seed oil mill. Our firm secured the order, and in December, 1902, with one of our best mechanics, I left for Russia. This mill was erected at a place called Bairam Ali, in Russian Turkestan. This village is on the ruins of the ancient city of Merv and is in one of the most interesting countries on the globe. Being so very far away, not many travellers are attracted there, but the ruins through the country at Samarkand, Bokhara, Merv, and many other places are among the most wonderful in the world. I have a collection of photographs which I took over there that I believe is the best in existence any-

where. I saw quite a lot of Russia, spending a few weeks in the Caucasus Mountains, and rode over the celebrated mountain pass from Vladikafkaz to Tiflis. Have crossed the Caspian Sea six times and been as far east as Tashkend. I left Russia the last day of August, 1903, and we built way down in the heart of Asia the finest cotton seed oil mill in the world. I have a gold watch and chain and a diploma given me by the czar for having erected this mill on his private estates."

Pease served during the Spanish American War in the First Ohio Cavalry from May to November, 1898, being camped at Chickamauga, Lakeland, Florida, and Huntsville, Alabama. He served in the city council of Dayton, as chairman of the playground committee of the Vacation School Association, and a member of the Ohio commission for the blind. He was a 32nd degree Mason and belonged to the Chapter, Council, Knights Templars, Scottish Rite and Mystic Shrine.

*PECK, HENRY LYMAN (1888-89) V
Died December 6, 1890.

PECK, WALTER TOUCEY (1889-92) VI
Apartado 2289, Havana, Cuba.
Consulting Engineer.
Married, January 17, 1902, Elisabeth Chester Backus. Children, Elisabeth Chester, Samuel Clarke.

TEN years ago, Peck was engineer for Zaldo and Martinez, Agents in Cuba for the General Electric Company, located at Havana, Cuba. It was with this same company that he began his engineering career. The following is taken from the 1909 Class Catalogue:

From October, 1892, to December, 1894, he was with the Thomson-Houston works of the General Electric Company at Lynn, Mass. After a short stay at the Schenectady works, he was sent by that company, in January, 1895, to their Mexican department at the City of Mexico, where he remained until June, 1898, when he returned again to the Schenectady works, where he remained four years in engineering and commercial branches of power, mining and foreign departments. In June, 1902, he went to the west coast of South America for W. R. Grace & Company, the agents of the General Electric Company there, as electrical engineer for that company in Peru, Bolivia and Chile. His contract with W. R. Grace & Com-

pany expired in August, 1907, when he started in on his own account in consulting and contracting engineering business. He returned to the United States in December, 1907, to perfect business arrangements with manufacturers of machinery and supplies whom he represents as selling agent. On this trip, he was commissioned by the government of Chile to make a comparative study of railroads in this country operated by steam and by electricity, as the Chilean government was considering the feasibility of electrification of a considerable length of State railroad. Peck attended the informal class dinner in Boston, on March 14, 1908, when he expected to return to Chile in a short time. He is a member of the American Institute of Electrical Engineers.

PEREZ, FAUSTINO APOLONIO (1889-95) III

Address unknown. Formerly Parras, Coahuila, Mexico.

IN 1909, Perez wrote as follows: "From November, 1894, till April, 1895, I went to Sierra Mojada to practice mining, then came home and attended to my father's business until June, 1897. Then I got the position of general manager and electrician of la Compania de la Luz Electrica de Parras, till August, 1900. Then I went to Parral as general manager and engineer for La Cia Minera La Coahuileuse, also for la Negociacion Minera de Cerro, Colorado, till June, 1901. Came home and in January, 1902, was again elected president, general manager and electrician of La Cia de la Luz Electrica de Parras."

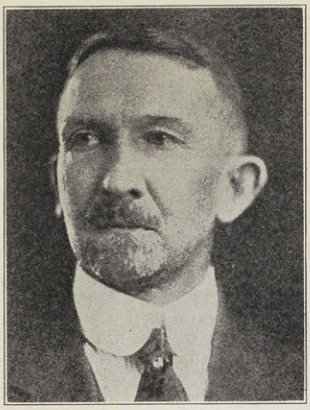
*PERKINS, GEORGE BATCHELLER (1889-92) IV

GEORGE B. PERKINS, who had been living abroad for a number of years, died at Cannes, France, in February, 1924. During his residence in France, he had studied painting.

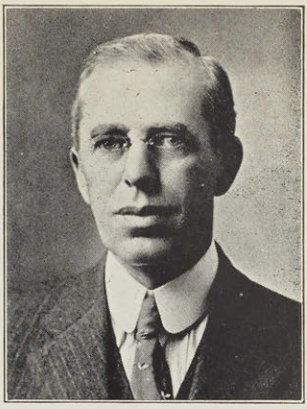
PERRY, PHILIP EDWARD (1889-92) I

Instructor in Mechanical Drawing.
Born, October 28, 1868, Portland, Maine.
Married, December 21, 1906, Marion Woodward. Children, Robert Woodward, Elinor.
Home, 35 Clarke Street, Lexington, Massachusetts.

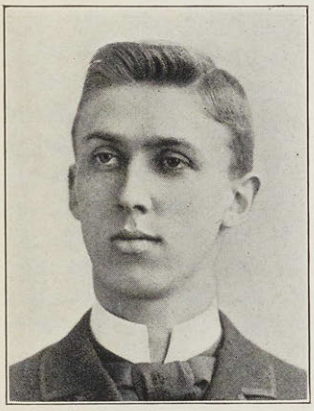
"UPON leaving Tech, I went with Boyd on the Bangor and Aroostook Survey in northern Maine. After working on this survey two summers, I did office work in production department of General



Walter W. Patch



William W. Peabody



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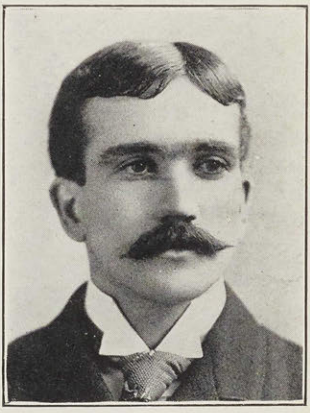
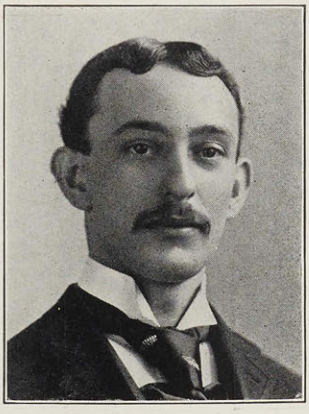
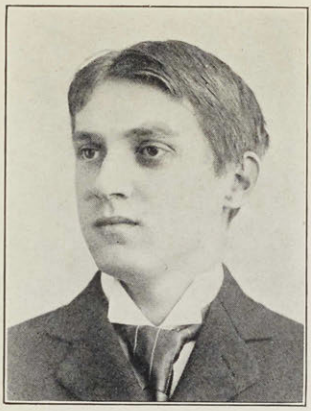


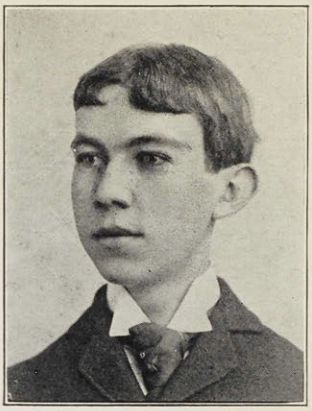
Harry M. Phillips



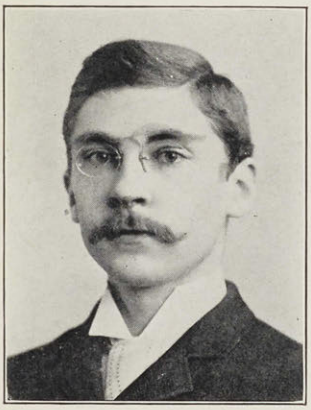
Leo W. Pickert

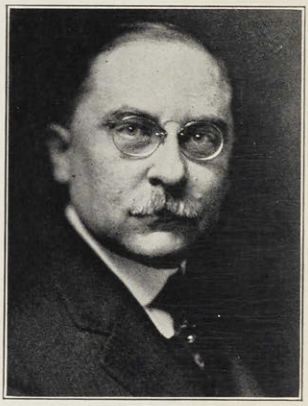


James H. Reed

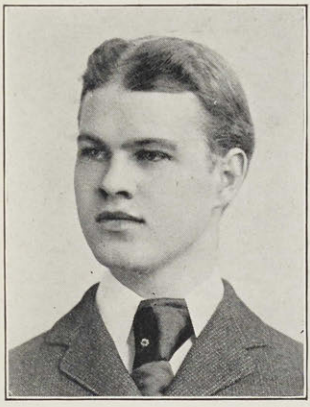


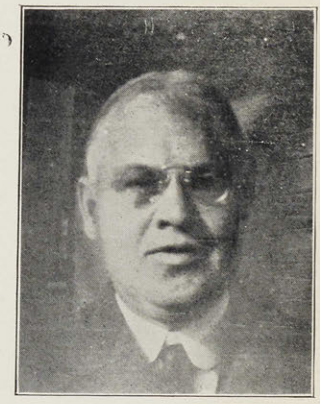
Henry L. Rice





Frank D. Richardson





Harold A. Richmond

Electric Company at Lynn. In 1895, went with the Megquier-Jones Company of Portland, and in 1901, with Russell Snow Plow Company of Boston. This same year, I entered the teaching profession, in which I have been engaged ever since."

He is a member of the Old Belfry Club of Lexington.

PETTEE, EUGENE EVERETT (1889-92) VI

79 Milk Street, Boston, Massachusetts.
Consulting civil engineer, member of firm, J. R. Worcester and Company.
Home, Cliff Road, Wellesley Hills, Massachusetts.

HE is a member of the American Society of Civil Engineers, Boston Society of Civil Engineers, of the Newton Boat Club, Woodland Golf Club, American Canoe Association, American Society for Testing Materials, and the Boston City Club.

PEVEAR, ARTHUR STETSON (1889-92) VI

105 Water Street, Boston, Massachusetts.
Insurance Agent, General Business.
Born, January 4, 1872, Lynn, Massachusetts.
Married, June 8, 1898, Clara M. Whitney. Child, Dorothy W.
Home, 105 Chestnut Street, Cambridge, Massachusetts.

"I SUCCEEDED to the business (as an insurance agent) of my father on his death in the fall of 1892, and have been engaged in the same occupation ever since. My offices have been at 31 Milk Street, 30 Kilby Street, and now at 105 Water Street, Boston. I have never held public office. During the recent war, I was simply a loyal citizen, trying to keep things going and aiding in the Red Cross drives, etc. My Tech training has been beneficial to me in the way of a general education, as I have not specialized in anything electrical."

He is a member of the Economy Club.

PHILLIPS, HARRY MILO II G

Keokuk, Iowa.
Treasurer, Irwin-Phillips Company (Wholesale Dry Goods).
President, Keokuk Pure Ice Co.
Born, December 22, 1869, Keokuk, Iowa.
Married, June, 1901, Anna Mary Bicknell. Child, Robert Fowler.
Home, 616 North Seventh Street, Keokuk, Iowa.

REUNION CORRESPONDENCE

Boston, Mass.
March 20, 1924.

MR. FREDERIC H. FAY,
200 Devonshire St.,
Boston, Mass.

Dear Fred:

In talking with you on the telephone the other day I apologized for my failure to respond to your letter of some six months ago asking for impressions of the '93 Reunion at Wianno. You stated then that you would still be glad to have such an expression from me.

To go back to last Spring when I first spoke to my wife about '93's Thirtieth Reunion, she showed about as much enthusiasm as if I had said "It looks like rain." I was disappointed but not discouraged. Each installment of the very attractive and convincing campaign which emanated from Henry Morss' office was called to her attention. Finally she asked me why it was that after twenty-nine years of reunion without the ladies we were laying such enormous stress upon the fact that they were being invited to the Thirtieth, and urging them so much to be present.

She wanted to know if the enfranchisement of women had brought this about; she wanted to know if prohibition was responsible; she wanted to know if it was, perhaps, a sign of senility on the part of the class members. She warned me that feminine presence was apt to devitalize the company, that our acute discussions would have to be conducted in a cautious undertone, and that the flavor of these reunions which, with adventurous interest the women might be eager to taste, they would dissipate by their very intrusion.

My experience in reversing the opinion of a wife being only about four months old at that time, I confess the opening day of the Reunion was upon us and I was still unsuccessful in exacting a promise that she would accompany me to Wianno. However, at the eleventh hour she announced that she would waive all objections and go—just to please me.

In view of the foregoing statements, I take the liberty of quoting from a letter I received from Mrs. Dawes during her absence from home immediately after the Reunion.

"AFTER graduation, I worked as draftsman in New York City for a while, then bought in, and sold out of, several small business enterprises, gaining more experience than pecuniary profit.

"My most noteworthy experience was in 1898, when, at the solicitation of a friend, I made a design and working drawings of an automobile, which actually ran after being built. A company was formed and a plant purchased, but it gave up for lack of funds and other good reasons, not one of which was the design of car, I assure you. Now, right here is where I lost the greatest opportunity of my life. If I had only looked up Henry Ford, thus early in the automobile game, and had told him of my wonderful experience, and had invested seven or eight dollars to help him out, I might have sold out later for seven or eight millions.

"I then returned to my birthplace, Keokuk, Iowa, and have lived here since, just a slave to the dry goods business. While I have met many Tech men during the building of the Mississippi River Power Company plant, I regret exceedingly that I have seen only one of my classmates, and that was my good friend, Harry Latey. Such a situation results from attending college in one section of the country and residing later in another.

"Having a freckle on my face, I could not get into the army, but I superintended the making of thousands of army work garments, and was active in the various drives for money. This in brief has been my hum-drum existence."

Phillips is a member of the Chamber of Commerce, Keokuk Club, Keokuk Country Club, Hancock County Automobile Club; B. P. O. Elks, Modern Woodmen, and Phi Gamma Delta society. His amusements and hobbies are "swimming and sailing, and fussing about and under a car."

*PHINNEY, FRANK FERGUSON (1889-91) II

Deceased.

FRANK FERGUSON PHINNEY died March 6, 1920. He was president and treasurer of the Warren Steam Pump Company of Warren, Massachusetts, with which company he had been connected for several years. In 1898, he was treasurer of the Tyler manufacturing company; director, Edward S. Clark Marine Company; director, Chestnut Hill Land Company of Brookline. He served for fifteen years in the First Corps of Cadets, Boston, retiring in 1905 from the position of treasurer and paymaster.

He was a member of the Puritan and Exchange Clubs of Boston, Tatnuck Country Club of Worcester, Technology Club of New York and the Sigma Chi fraternity. In March, 1904, he married Mary E. Wells. They had one daughter, Mary Elizabeth. Mrs. Phinney died in December, 1921.

PICKERT, LEO WALTER V G
16 New Street, East Boston, Massachusetts.
President and treasurer, L. Pickert Fish Company.
Home, 464 Commonwealth Avenue, Boston.

AFTER leaving the Institute, Pickert accepted a position with the American Sugar Refining Company, remaining until June, 1905, in the capacity of chief chemist of the Standard and Continental refineries. Since that time, he has been with L. Pickert Fish Company, as vice-president, and, his present offices, president and treasurer.

PIERCE, LORING ELLSWORTH (1889-90)
East Lexington, Massachusetts.

*PIKE, GORDON BRAINERD; B.A. (1890-91) IV
Deceased.

GORDON BRAINERD PIKE died in 1919. He was for some years an architect with McKim, Mead and White of New York City.

*PIPER, WILLIAM BENJAMIN (1889-90)
Died April 6, 1896.

PLEASANTS, JOHN (1889-90)

PORTER, EDWARD AUGUSTUS (1889-90)
Molalla, Oregon.
Farmer.

IN July, 1890, he went to Minneapolis, Minnesota, on electric street railway work. September, 1891, he went to Duluth, Minnesota, and worked in a power station of a street railway company for one year. In September, 1892, went to Minneapolis, Minnesota, where he was a foreman on electric motor repairs for the street railway company one year. In 1893-94, was a student at the University of

Minnesota. June, 1894, till March, 1898, he worked as machinist, engineer and electrician in the State of Washington, in Portland, Oregon, in San Francisco, California, and at the Santa Sussana railroad tunnel in California. In 1904, he bought a farm in the Willamette Valley, Oregon, where he has since lived.

During the war, Porter was a junior engineer for the United States Shipping Board.

RANDALL, EDWARD BRYANT (1889-93) VI

815 Battery Street, San Francisco, California.
Superintendent, American Biscuit Company.
Born, June 17, 1872, Medford, Massachusetts.
Married, 1912, Elsie Margaret Noonan.
Home, 904 Green Street, San Francisco, California.

RANDALL stayed in Boston for several years after 1893, first as clerk in a sheep leather house, then as clerk in a rubber boot and shoe house, following that, six months in the West End Street Railway power house. He calls this a period of learning how much he did not know. After some months as a student with the National Biscuit Company at Cambridgeport, learning the biscuit manufacturing industry, Randall went to Chicago in the general office of the manufacturing department and became assistant to the manager. He was in Chicago eight years; then gave up his position and went to Idaho, mining. "Learned a lot in Idaho—never saw the mine and went dead broke—and ran a small hotel in Salmon, seventy miles from a railroad, for a year." About 1907, he went to San Francisco with the American Biscuit Company as assistant superintendent and has been there ever since.

He writes:—

"Nearly all my spare time and my whole life is given to a branch of New Thought called The Truth, which is the absolute teaching of the spiritual unfoldment of man. This includes spiritual teaching, lecturing and healing, all of which I do for the love of it.

"Most of my extra income is also used for this purpose. I live very quietly and simply, but very happily.

"I have found life does not consist in getting things or owning things, but in unfolding or growing like a flower. The greatest man in the world is he who has the greatest self control and practices the greatest selflessness. This is the ideal I vision and strive to attain. I will tell you of the success in the next 30th anniversary Class Book."

During the war, his company manufactured hard bread and other biscuits for the army and navy.

For recreation, he prefers walking, camping and moving pictures.

His suggestion for possible improvement at the New Technology is:—

"Have professors and teachers who are human, not merely intellectual machines. Also have a course to teach students how to think and stop cramming their minds with useless book learning."

RAYMOND, EDWARD LINCOLN; A.B. (1891-93) III

Address unknown.

Landscape architect: in 1898, in Boston; in 1909, with W. A. Manda, South Orange, New Jersey.

READ, EDWARD BURRELL (1889-90)

Richford, Vermont.

Secretary, Richford Manufacturing Company, Manufacturers of furniture.

Married, May 1, 1900, Edith Rose Mears.

Home, Richford, Vermont.

"ON leaving the Institute, I went into the furniture manufacturing business, my father then having a factory in Boston. The business was soon after moved to Keene, N. H., thence to Manchester, N. H., and in 1900, to its present location in Richford, Vermont. From 1896 to 1900, I was engaged in the work of the Young Men's Christian Association as a general secretary, but returned again to the furniture business and am now located in northern Vermont, near the Canada line." (From 1909 Class Catalogue).

REED, ARTHUR GORDON (1889-90)

17 Court Street, Boston, Massachusetts.

Old Colony Trust Company—safe deposit department.

Married, June 1, 1898, Margaret J. Parsons. Children, Philip G., Robert R., Malcolm.

Home, 20 Lowell Avenue, Newtonville, Massachusetts.

SINCE leaving the Institute, Reed has been in the banking business; for five years with the Lechmere National Bank of Cambridge; then as paying teller with the Bay State Trust Company of Boston, continuing with that company after its consolidation with the Old Colony Trust Company of Boston. He is a member of the Bank Officers' Association.

REED, JAMES HENRY VI G

253 A Street, Boston, Massachusetts.

Treasurer of National Machine and Tool Company, also president and director.

Born, December 15, 1872, Boston, Massachusetts.

Married, June 30, 1897, Mary W. Page. Children, James H., Jr., Rosamond E.

Home, 14 Strathmore Road, Brookline, Massachusetts.

"MOST uneventful career. In same business from 1893 to date. Treasurer and now sole owner of a company making special machinery. During the war, business was expanded greatly and practically all work was on machine tools for ordnance work or on making ordnance parts. Since the war, the business has been 'shot to pieces'. Have travelled very little, and have never held any public office. Have not kept in touch with Tech, but naturally see more or less of Tech men in Boston. Tech training has been of little use in my life, except to give me the confidence that I could overcome difficulties as they arose, and there surely have been plenty of them."

He is a member of the Exchange Club, University Club of Boston; Brookline Country Club and Boston Athletic Association. He has no hobbies, but likes out-door sports.

REED, WILLIAM KIMBALL (1886-87; 1889-90)

REED-HILL, WILLIAM IV G '94

2 Stone Street, New York City.

Consulting Engineer, designing Hydraulic Systems for the safe and economical handling and storage of gasolene, fuel oil, and other dangerous fluids.

Born, 1871, Maine.

Married, Georgianna L. Ellis. Child, Ellis.

Married, June 1, 1910, Helen Conlombe. Children, John Edward, Marie Helen.

Home, 86 Haven Avenue, New York City.

HE was head draftsman for John Scott & Co., architects, till March 15, 1902, during which time he designed the Wayne County Court House, Detroit, and the Carnegie Library, Windsor, Ontario, as well as several residences. At the above mentioned date, he established the firm of Mason & Reed-Hill, architects, which firm designed the academic treatment for the lower end of Belle Isle, Detroit, St.

Paul's Cathedral, Detroit, and several theatres, apartment houses and residences in Canada and the United States. On July 1, 1903, he became a member of the firm of John Scott & Co. During the war, he withdrew from the firm to go into ship designing.

"During the war, assisted in Naval training and inspection work on water. Sixty-two of my war students were commissioned in the Navy; 400 odd became efficient gobs. At present, equipping Government and commercial vessels and shore installations with a hydraulic oil system in the interest of safety and economy."

He has delivered lectures before certain clubs on art, architecture, the French language and the history of the church, written articles and papers and given courses of lectures, during the War, on Navigation, Piloting, etc.

He is a member, American Society of Naval Engineers, United States Power Squadrons.

His hobbies are vessel design, navigation, piloting, yachting and oil handling.

He has two grandchildren.

RESOR, WILLIAM SETH VI G

820 Poydras Street, New Orleans, Louisiana.
Engineering Department, Cumberland Tel. & Tel. Company.
Born, June 4, 1871, Cincinnati, Ohio.
Married, October 24, 1900, Mayme More Woolsey (deceased). Child, William Woolsey. Married, June 1, 1915, Hilda Hargdel. Children, William S., Jr., John R.
Home, 2406 Jena Street, New Orleans, Louisiana.

OF the thirty years since graduation, Resor has been in the telephone business for twenty-six years. For several years, he was with the American Telephone & Telegraph Company as inspector, first at Cincinnati, Ohio, and then inspector for Tennessee, Alabama, Mississippi and Louisiana, stationed at Nashville. Following this, he was with the engineering department of the Chicago Telephone Company and the Central Union Telephone Company at Chicago. Then he became a manufacturer of automobiles, but resigned his position as treasurer of the Bendix Company of Chicago in 1909, returning to the telephone business. He has been statistician in the engineering department of the Cumberland Telephone and Telegraph Company at New Orleans for a good many years. Has recently taken up accounting and is studying for a C.P.A.

He is an associate member of the American Institute of Electrical Engineers and was president of the West Side Technical Club of the Chicago Telephone Company in 1907-08. He is a member of the Theta Delta Chi fraternity.

REYNOLDS, ROBERT DUNCAN II G '94

B. F. Sturtevant Company, Hyde Park, Massachusetts.
Engineer.
Married, October 3, 1907, F. Louise Lawrence.
Home, 41 Kirkland Street, Cambridge, Massachusetts.

REYNOLDS has been with the B. F. Sturtevant Company since leaving the Institute. During the war, the Sturtevant Company manufactured apparatus for destroyers and submarines, munition factories and chemical plants.

He has served as trustee, Jamaica Plain Council, Royal Arcanum; secretary and treasurer of the Footlight Club of Jamaica Plain; he is a member of Trinity Club and the Order of the Loyal Legion.

RICE, HENRY LAWSON X G

Aberdeen Proving Ground, Maryland.
United States Army Officer.
Born, June 27, 1872, Lawrence, Massachusetts.
Married, February 4, 1902, Mary Cohn. Child, Alice C.
Home, Aberdeen Proving Ground, Maryland.

"ON leaving Tech, worked three years with Milwaukee Gas Light Company as chemist and later superintendent of distribution. Then eight years with Norfolk (Virginia) Gas Company, first as superintendent and then general manager. Next ten years, general manager Western United Gas & Electric Company, Illinois. Specialist on high pressure artificial gas engineering, in which this company was one of the pioneers. Awarded Beal Medal, American Gas Association, for scientific work in this line. Director American Gas Association, President Illinois Gas Association. During this period, became increasingly active in consulting work and finally resigned to pursue this work to greater advantage. During the next three years vice-president and consulting engineer of several public utilities in the Middle West. This work was interrupted by the war and the next step was the Army and France. Served in the Ordnance Department first as Major and later Lt. Colonel. After the war,

accepted commission as Major, Regular Army, and have since been stationed in the Office of the Chief of Ordnance, Washington."

Rice has written articles for various magazines and made public addresses on public utility engineering and accounting. He is a member of the Army Ordnance Association; University Club and Columbia Country Club of Washington, D. C. Golf is his recreation.

RICHARDSON, FRANK DOUGLAS II G

195 Broadway, New York City.

Engineer of Inside Plant, Long Lines Department, American Telephone and Telegraph Company.

Born, June 6, 1871, Newton Center, Massachusetts.

Married, June 14, 1911, Ida M. Parshall.

Home, 650 East 21st Street, Brooklyn, New York.

"As I send my thoughts back to the early months of 1893, I remember quite a number of things that were happening to me at that time. I remember being fearful of not receiving my degree; I remember working hard (or I thought I did) with Barbour, on my thesis, and I remember all the pleasures of graduation days, but I do not have any recollection of an army of prospective employers interviewing me each with the hope that I would consent to join his force after graduation and start my life work in his business. I was very glad, therefore, when it was suggested to me by Professor Lanza that I accept a position for the coming year as an assistant in Mechanical Engineering. On reporting in the Fall, I was assigned to Professor Schwamb as his assistant. This position I held for two years and every minute of my work was a pleasant one to me. I felt, too, that although I never intended to continue in the teaching profession, my time was far from being wasted, as experience in the art of imparting information is invaluable and oftentimes one gets quite a different slant on a question when he is faced with the problem of explaining it to others.

"In 1895, however, I severed my connection with the Institute's instructing staff and went to New York to seek my fortune. (I might say here I am still seeking it.) I was still without offers from people anxious for my services, but I had a Tech catalogue and I visited all the Tech graduates in New York City. In a short time, I was accepted as a draftsman in the Babcock & Wilcox Company, and remained there for a few months, leaving to accept a higher-

paid position with a concern that was manufacturing air-brakes for street-railway cars. I was not appreciated by the boss of this outfit, and after a short stay was told my services were no longer required. So in the spring of 1896, I had to start all over again and look for a job. This I again found to be no easy matter, but at last prevailed upon Mr. E. D. Brown, an M.I.T. man in the employ of the American Telephone and Telegraph Company, to find a place for me in his organization. On June 1, 1896, I started my work with that company and there I have been ever since.

"After having some experience in the Northwest, inspecting timber for poles, etc., I settled down to what became my specialty; namely, toll equipment and inside plant. My work has been connected entirely with the long lines toll plant and only indirectly with local telephone service. I have seen many changes in toll plant practices during this period of twenty-seven years. When I started with the Company, toll telephone service had been extended from New York to Chicago only a few years previously. This was accomplished by using No. 8 B. W. G. copper metallic circuits, in which work I believe A. N. Mansfield, '91, was largely instrumental. These circuits were plain non-loaded and non-phantomed circuits and, of course, were not supplied with repeaters of any kind. Later on, in 1911, I saw the opening of the New York-Denver toll service, made possible by the development of the loading-coil; and still later, in 1915, the opening of the New York-San Francisco service which, in turn, was made possible by the invention and development of the telephone repeater. This is just a mere outline of the high spots in the history of long toll telephone service development which has happened during my connection with the work, but there have been countless other developments, in which I have to a greater or less extent shared, all of which have made possible the present degree of universality of telephone service.

"My work has at all times been at the general office of the company at New York. The first few years I was associated with George M. Yorke, '93, who afterward became connected with the Western Union Telegraph Company and is now its vice-president. (See his sheet for further particulars.) I have been associated with a number of other M.I.T. men who are employed in various capacities in the Bell System throughout the country, but it so happens that none of them, with the exception of Yorke, is a '93 man.

"Both my business life and my family life have been uneventful. I am married but have no children. I enjoy my home and

enjoy my vacations, but my time has been passed in a way which, though it has given me a great deal of pleasure and happiness, cannot be described on paper so as to be interesting or novel to others. I certainly believe I benefited greatly by my Tech training, but have not by any means followed the path which I had expected to follow when I decided to go to M.I.T."

He is a member of the American Institute of Electrical Engineers and of the Telephone Pioneers of America. He has made several trips to Europe, to the West Indies and the Canal Zone. Golf, tramping, mountain climbing and reading are his recreations.

His war work was confined to engineering for the inside plant long lines department of his Company.

RICHMOND, HAROLD ANTHONY II G

Niagara Falls, New York.

Treasurer and Manager, General Abrasive Company.

Born, January 3, 1871, Brooklyn, New York.

Married, April, 1895, Evelyn L. Kimball. Child, Margaret.
Married, July 21, 1923, Mrs. May C. (Nicholson) Strasburg.

Home, Lake Road, Youngstown, New York.

"AFTER graduation, I went to Fitchburg, Massachusetts, to work as draftsman for George F. Simonds, who was then engaged in developing a new type of ball bearing for carriage axles and street cars. Within a year, Henry M. Whitney bought the business and moved it to Boston, where I became superintendent and later treasurer and manager. The Simonds design proved unsuitable for carriage and car service; I therefore proposed the development of ball and roller bearings for general machine construction. At that time ball bearings were successfully used on bicycles, but practically nowhere else. Our company (the Ball Bearing Company) designed and sold the first ball thrust bearings used on upright drills and screw propellers. The new field proved a profitable and successful one. Many of the designs worked out at that time are still in use.

"In 1897, I bought from A. B. Smith (at that time director of the old Tech machine shops on Garrison Street) an embryo grinding wheel company which he and some friends had started not long before and which had gone on the rocks. I moved this to Providence, Rhode Island, and spent the next twenty years developing it. During this time, I became vice-president and director of the Universal Grinding Machine Company and secretary of the Richmond Land Company.

"This letter is going to be all about your Thirtieth. How glad I am that I did not carry out my decision to remain away. What a delightful spot Wianno is, and what a charming host your Class President is! Of course I know you must have had other worthwhile presidents (have you ever been?), but how could you ever improve on Mr. Fabyan?

"With what sort of cement or masonry was the Class held together all these thirty years? And to think that some members came from such distances as Mexico, California, Canada! It is truly remarkable. I am even inclined to think it is unprecedented. How pleasant it is to think back on the luncheon at the Wianno Club, the costume party, the roulette tables and Mr. Bemis' generosity with his stage money, and then the dance. On Saturday, golf for those who refused to recognize the rain, and in the afternoon the tea at Mr. Fabyan's home in Buzzards Bay. At night the Class Dinner and the separate dinner and entertainment for the ladies, and Sunday morning the baseball game.

"Truly, the Class of '93 has preserved a fine balance between youth and sophistication. Men who have retained so much of the spirit of boyhood cannot have outlived all of its generosity and simplicity. At Wianno there was *no aristocracy of feeling.* Talk as we may about the satisfaction of success in life, of gratified ambition, what is it all compared to the unadulterated joy of that time when you built your card houses? And Browning's lines, 'Grow old along with me, the best is yet to be, the last of life for which the first was made,' must mean 'Keep young along with me,' translated into our common idiom.

"Must we ladies wait another five years for an invitation? I never had the pleasure of knowing what 'OLD '93 Used to Be,' but I believe she is better than *that* now."

Yours very truly,

(Signed) H. N. DAWES.

"In 1915, I helped to organize the General Abrasive Company of Niagara Falls. This company was to make electric furnace abrasives, which I wished to obtain for the American Emery Wheel Works of Providence, of which I was president. I did not expect to be actively interested in the General Abrasive Company, but through unforeseen circumstances, I was obliged to take charge of its affairs in 1917. I live now at Youngstown, New York, on the shore of Lake Ontario, and motor back and forth to the Falls.

"I am also president and manager of the Warner Mining Company of Georgia.

"In 1909, I travelled extensively in Continental Europe.

"Quite often I meet Marvine Gorham in Buffalo. He hasn't changed a bit. He still wears that winning smile he had on in Boston. Once in a while I hear from Ramsey Speer, from his patriarchal estate on the Eastern Shore of Maryland. Alden's enormous success in the roller bearing industry, of which I often hear through Detroit friends, interests me on account of my early connection with the Ball Bearing Company.

"Closely connected, as I always have been, with mechanical industries, my Tech training has been invaluable. I have always been chief engineer of the companies I have managed, and in this capacity I have had to design a lot of special machinery and equipment. I have also designed many factory buildings. Even my chemistry, which was about as intelligible as Greek to me in school, has been mighty useful in the preparation of the several electro-chemical patents which I have taken out.

"Altogether there are many Tech men located in Buffalo and Niagara Falls, and at least once a year a Tech outing is held which always proves enjoyable."

Richmond has patented processes for the manufacture of artificial corundum. He has written various articles for the technical press on ball bearings and abrasives. He was a student at the Sheffield Scientific School, Yale, from 1888 to 1890, and he entered the class in our junior year. At Sheffield, he was a member of the Delta Phi fraternity and editor of the *Yale Courant*. At Tech, he was a member of the Hammer and Tongs and the K. O. S. societies, and was on the editorial board of *The Tech*. He is a member of the Society of Mechanical Engineers, Delta Phi fraternity, University Club of Providence, Niagara Club and Niagara Falls Country Club. His recreations are farming and golf.

RIPLEY, MRS. WILLIAM Z. (Davis, Ida Sabin) (1889-90) VII
Home, 38 Bracebridge Road, Newton Center, Massachusetts.
Married, February 20, 1893, William Z. Ripley. Children, Bettina, Ruth (Mrs. Emmet Carver), William, Davis.

MRS. RIPLEY is the wife of Professor William Z. Ripley, '90, Nathaniel Ropes professor of political economy at Harvard University. In May, 1923, Mrs. Ripley was elected president of the Women's City Club of Boston, an organization of 5600 members. Mrs. Ripley served as a member of the executive committee of the Club from 1917 to 1920, the activities committee in 1918-19, and chairman of that commitee in 1921-22. She is now serving as chairman of the joint commitee on Social and Industrial Conditions. She is a member of the Women's Trade Union League executive board; the Foreign Policy Association; Massachusetts Branch, New England advisory committee, Bryn Mawr School for Women Workers; chairman (1923) of the Child Labor Conference of the New England States and a member of the executive committee of the Massachusetts Committee on Raising the School Age.

ROACH, HARRY FAY (1889-91) IV
915 Olive Street, St. Louis, Missouri.
Architect and Engineer.

ROBERTS, WILLIAM ELMER (1888-90)
Board of Education, Cleveland, Ohio.
Supervisor of Manual Arts, Cleveland Public Schools.
Born, July 21, 1866, Cambridge, Massachusetts.
Married, July 24, 1901, Helen Perry Foote. Children, Donald Foote, Lois Gertrude, Helen Perry.
Home, 1218 Webb Road, Lakewood, Ohio.

"FINANCIAL necessity made it necessary for me to leave Tech at the end of my first regular year, with the full intention of returning to complete the course. In the fall of 1890, I accepted position as principal of West Manual Training School in Cleveland. In 1893, I was appointed supervisor of manual training in the Cleveland Public Schools, which position I still hold. The importance and rapid development of my work deferred my return to Tech from year to year, until that intention had to be abandoned. Fully half of my summers have been devoted to professional preparation for educational work at various universities and schools—Harvard, Columbia,

Rhode Island School of Design, Bradley Polytechnic Institute and others.

"During the war, I acted as director of boys' work for the Lake Division of the Junior Red Cross, including the states of Ohio, Indiana and Kentucky, as well as officer and worker in two local Red Cross organizations. I participated actively in several of the Liberty Loan campaigns.

"For many years, I have been a member of the board of management of the Cleveland Y. M. C. A. The most interesting experiences outside of my profession have come through travel and camp life in most parts of our country. My experiences in shop at Tech were the means of directing me into my life career. My position in Cleveland was secured as a result of these experiences and the reputation of Tech. My early withdrawal and departure to a distant city probably accounts for the fact that I do not recall having met with any member of the class of '93."

He is an active member of the National Educational Association, National Society for Promotion of Industrial Education, Vocational Education Association of the Middle West, Eastern Arts Association, Western Arts Association, School Arts Club, Schoolmasters Club and the City Club of Cleveland. He has written many articles upon education, particularly industrial education in professional and welfare magazines; many papers and addresses before educational organizations and conventions; lectures and laboratory courses at University of Chicago, University of Washington, Illinois State University, Bradley Polytechnic Institute, Cleveland School of Education and others. He is associate editor, *Industrial Education Magazine.*

His amusements and hobbies are handwork, gardening, flivvering, canoeing, camping, tramping, camera-hunting, theaters and movies.

ROGERS, HOWARD LEWIS (1889-91) VI

147 Milk Street, Boston, Massachusetts.

Vice-President, Stone and Webster, Inc. (In charge of Division of Construction and Engineering.)

Born, September 7, 1871, Newton, Massachusetts.

Married, January 22, 1907, Clara Hunt Phillips. Children, Caroline Cranford, Dorothy, Thomas Nickerson, John Gardner, Mary Virtue.

Home, 34 Spooner Road, Brookline, Massachusetts.

"AFTER my second year I went into Stone and Webster's drafting room for the summer and just stayed there and grew up with the organization. I have filled a great variety of positions as the business developed and changed, and am now one of eight vice-presidents. During the war our organization was called on to do a great variety of construction both at home and abroad, and it seemed clear to me that my job was to help my associates get these things done, so I did not go into military service." He was advisor to the engineering construction committee, Council of National Defense, in organizing the construction division of the Army. Rogers served for thirteen years in the Massachusetts militia in all grades up to captain in the Field Artillery, and as major and lieutenant-colonel in the Inspection Department.

"Even my two years at the Institute has helped me in logical thinking and in ability to analyze. 'Possible improvements at the New Technology?' More report writing and more public speaking; but I know these things are being done more than in my day."

He is a member of the Union Club, Algonquin Club of Boston; Brookline Country Club; Corinthian Yacht Club of Marblehead and Boston Yacht Club.

ROLLINS, GEORGE OSCAR (1889-91)
North Brookfield, Massachusetts.
Insurance Agent.
Married, December 17, 1896, Hattie M. Green.

AFTER leaving M.I.T. he attended the Worcester Polytechnic Institute and finished his course there in 1894. He was engaged in manufacturing lasts at North Brookfield from 1894 till 1902, since which time he has been an agent for the New York Life Insurance Company. He is a member of the Knights of Pythias and Masonic fraternities.

ROPES, GEORGE HARDY (1890-92) IV
602 Sun Building, Detroit, Michigan.
Architect, of Pollmar and Ropes.

1898 address, care Architectural Club, Detroit; 1909, also at Detroit, Michigan, but of the firm of Pollmar and Ropes, his present professional connection.

ROSENHEIM, SAMUEL FRANCIS (1890-93) IV

1209 Washington Avenue, St. Louis, Missouri.

Proprietor of Belle Hickey Manufacturing Company (specializing in store equipment).

Born, September 25, 1870, St. Louis, Missouri.

Married, June 9, 1908, Harriet Ellbogen. Children, Frances, Ellen.

Home, 4611 McPherson Avenue, St. Louis, Missouri.

ROSENHEIM studied architecture at the Institute, which profession he followed until 1899, when he entered the glass business. He writes:

"I have been in business for the last twenty-three years, with only fair success. I suppose my average earnings would just about equal, but not surpass, the average earnings of our Class. So you see my life has been uneventful, neither praise nor blame-worthy. But I am rather proud of my girls. At least that is something that reconciles me to the course of events."

Rosenheim studied at Washington University, St. Louis, 1887-89, and at Columbia School of Mines in 1890. Music is his hobby.

RUGGLES, AUBREY (1889-90)

Freeport, Maine.

Playwright and Farmer.

SANBORN, GEORGE WALDO (1888-89)

SANDERSON, EDWARD SPALDING; M.E. (1889-90)

Scoville Manufacturing Company, Waterbury, Connecticut.

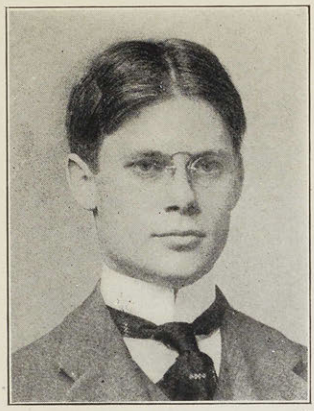
Sales Manager, Scoville Manufacturing Company.

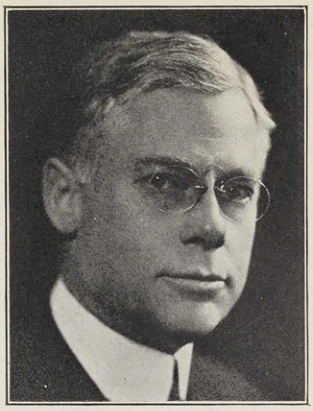
Born, September 8, 1872, Philadelphia, Pennsylvania.

Married, February 24, 1903, Fredrika Catlin. Child, Edward.

Home, 155 Buckingham Street, Waterbury, Connecticut.

IN 1894-95, Sanderson worked as apprentice and draftsman with the Kendrick Manufacturing Company, Carbondale, Pennsylvania, and then went to the Illinois Steel Company, Joliet, Illinois, where he remained until 1898, holding the positions of assistant chemist, assistant metallurgist, metallurgist, and night superintendent of the Pennsylvania Globe Gas Light Company, and later was superintendent of the Kitson Electric Light Company as well. From 1903

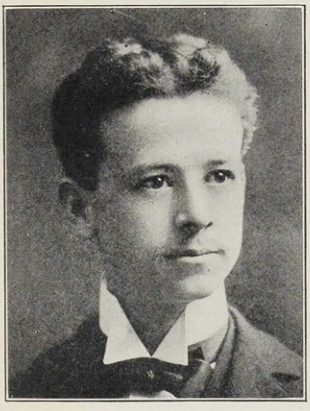




Howard L. Rogers

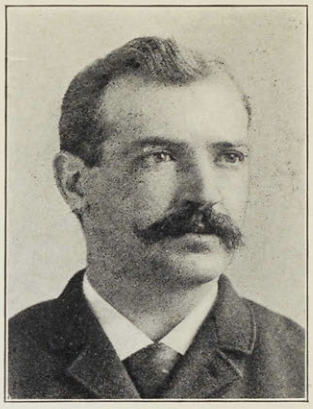
Samuel F. Rosenheim

Charles G. Sargent

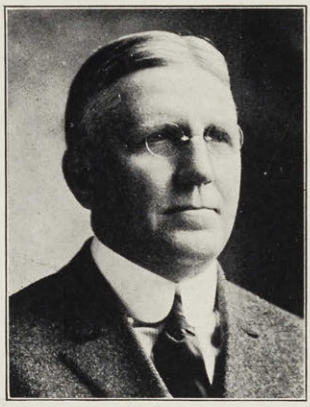


Howard R. Sargent

Frederic P. Simonds



Frederick D. Smith



George Benton Smith

John I. Solomon

to the present time he has been with the Scoville Manufacturing Company of Waterbury. Regarding his work with this company he writes: (1913)

"I have no title but have been successively in charge of branches of manufacturing production and sales. Since 1898 I specialized in brass work, and particularly in relation to lighting devices, gas, electric, oil, etc. I have taken out numbers of minor patents along these lines. I have not had time for extended amusements but take the usual enjoyment in social life, motoring, golf and tennis, and travel about considerably, for business mostly. I have been abroad only once. My principal affiliations are with Cornell. My one year at Tech hardly measures up to my four at Cornell, but I do remember many good friends, some of whom I occasionally see and hope to meet again."

Sanderson was with the Class during our freshman year, and then went to Cornell, where he received his M.E. degree in 1894. He is a member of the American Society of Mechanical Engineers, Sigma Phi (Cornell), Rotary Club and various Masonic orders.

SARGENT, CHARLES GRANDISON (1889-92) II

Graniteville, Massachusetts.

Sales Manager, C. G. Sargent's Sons Corporation. Treasurer, Graniteville Foundry Company.

Born, April 25, 1872, Graniteville, Massachusetts.

Married, May 2, 1895, Maude G. Smith. Children, Virginia M. (deceased), Vivian M.

Home, Graniteville, Massachusetts.

SARGENT has been for many years a manufacturer of wool and cotton machinery at Graniteville, Massachusetts. He is a member of the National Association of Manufacturers, Manufacturers' Club of Philadelphia; Wm. North Lodge F. & A. Masons; Ahasuerus Council, Mount Horeb R. A. Chapter; Pilgrim Commandery Knights Templars; Aleppo Temple Nobles Mystic Shrine. His chief amusements are golf and autoing.

SARGENT, HOWARD RANKIN (1889-92) IV

General Electric Company, Bridgeport, Connecticut.
Manager, Wiring Supplies Division, General Electric Company.
Born, January 21, 1871, Newton, Massachusetts.
Married, December 1, 1898, Emily E. Furman. Child, Elizabeth Morse.
Home, 30 Blackman Place, Bridgeport, Connecticut.

WITH the exception of the time spent abroad studying foreign methods of wiring, Sargent has been practically all the time since leaving the Institute with the General Electric Company—at Lynn and Marlboro, Massachusetts, Schenectady, New York, and Bridgeport, Connecticut, — as designing engineer in the lighting, switchboard and supply departments, managing engineer, and manager of the wiring supplies division, which is his present position. In his work he has been associated with a number of '93 men.

Sargent has had a great many patents issued and many more are pending. He has written many articles for technical magazines. He is a member of Electrical Manufacturers' Council and a member of the board of governors of the Associated Manufacturers of Electrical Supplies; is serving on the electrical committee of the National Fire Protection Association as a representative of the electrical manufacturers; has served on committees which have had to do with the standardization of the Edison lamp base, and on many other prominent committees carrying on engineering and standardization work.

While living in Schenectady he was alderman and president pro tem. of the Common Council of the city and was president of the Automobile Club of the City of Schenectady. He considers the trips abroad, to study foreign methods of wiring with a view of reducing the cost of wiring in the United States, his most interesting experience. His close contact with many hundreds of employees has led him to formulate some original ideas as to the education of the average student which he calls "a plea for the welfare of the boy cursed through inheritance from his father with a spirit of fun and from his mother with a poor memory."

"Speaking of the average student, in my opinion, the greatest good which a college can perform is to teach the student to reason, teach him to exercise foresight, teach him application and teach him to use data which is readily available. While memory is a wonderful gift, unfortunately many students, who may be exceed-

ingly bright in other respects, are lacking in this asset and, in my opinion, a study of the students who flunk and are dropped from college will indicate that many are dropped due to this one failing alone. Take chemistry and mathematics, for example; in my opinion, the student should be taught the processes by which chemical and mathematical formulae are arrived at and the use of the same, but, in view of the fact that these formulae can be obtained from hundreds of reliable books, there is no reason in the world why a student should be flunked because he cannot remember them under the stress and excitement of an examination. To my mind, in an examination, and even in the class room, a student should be given access to published formulae, dates, names, etc., and his yearly work should tend to show his ability and progress.

"The training of the memory should be largely accomplished in the preparatory schools, and I even question whether it is right to keep a man from entering college merely because he cannot remember the date on which Sir Walter Raleigh laid his coat in the mud for an historical flapper. I will not pass upon the preparatory situation, but I do very definitely feel that, where parents have made great financial and other sacrifices to put their boys through college, it is absolutely wrong to have the boys thrown out, due to a failing which many of us have and which may be inherited, namely, lack of memory. The discouragement and disgrace resulting from such action has, doubtless, broken the spirit of innumerable young men, as well as the hearts of their parents, and I dare say that the sense of right and wrong in many a boy has been severely sprained at examination time in the old days of stiff cuffs, while the instructor has refreshed his own memory from the text book.

"In my opinion, the professors and instructors in a college should be of such a quality that they know absolutely whether or not a student is applying himself, even though the student may also be cursed with a sense of fun, whether or not he can be so guided as to make progress and whether or not he understands the use of given data, and that much more dependence should be placed upon this broad-minded knowledge on the part of a professor than should be placed on examinations based on memorized data.

"The student, who has the God-given gift of memory, will in no way be hampered by such a policy and perhaps it would be well to favor him with a degree, but for humanity's sake, give his less fortunate brother at least a sheep skin, if he has other valuable assets, namely, ability, push and ambition.

September 11th, 1923.

Mr. Frederic H. Fay, Secretary, Class of '93,
Fay, Spofford & Thorndike,
Consulting Engineers,
200 Devonshire Street,
Boston 9, Mass.

My dear Fay:—

I am enclosing a letter which I have written to you. Please see that it is printed in our Reunion book, just as it is written, and understand that I do not want you to edit it; you may want to do this because of your modesty; it does not really say one-half enough in praise of you good men in and about Boston.

Very cordially yours,

(Signed) J. Ramsey Speer.

"This is a broad subject, capable of much consideration in detail, and the writer merely expresses it as a germ for thought for the broadening out of the Massachusetts Institute of Technology."

During the recent war Sargent was kept busy pushing the manufacture of war material. Ten years before he wrote that his only war experience was as "a M.I.T. freshman, fierce, fearless and a fiery warrior in the drum corps."

He is a member of the American Institute of Electrical Engineers, National Electric Light Association, American Society Mechanical Engineers; Brooklawn Country Club, University Club of Bridgeport; 32nd degree Mason, a Shriner; and a member of the Bridgeport Chamber of Commerce. His amusements and hobbies are golf, hunting, automobiling and bridge.

SAWYER, ALBERT HAYDEN IX G '94

10 State Street, Room 501, Boston, Massachusetts.

President and Treasurer, Boston and Florida Atlantic Coast Land Company, Inc.

Born, March 11, 1871, Newburyport, Massachusetts.

Married, August 3, 1898, Katharine Hopkins. Child, Hayden Page.

Home, 260 High Street, Newburyport, Massachusetts.

1897 through 1903, with Industrial Development Company; since before 1909, executive officer in Boston and Florida Atlantic Coast Land Development Company.

SAWYER, CHARLES WINTHROP (1890-92) IV

Consulting Arms Engineer.

Born, October 27, 1868, Boston, Massachusetts.

Married, June 18, 1895, Mabel Louise Warren (Tech '94). Children, Harriet Boynton, Philip Warren, Albion Topcliffe, Constance Bird.

Home, 41 Humphreys Street, Dorchester, Massachusetts.

AFTER ten years spent in architecture, two as draftsman and designer and eight in private practice in Boston, Sawyer accidentally drifted into teaching, which he found very congenial. He had private classes in architecture, taught in evening schools and in the department of drawing at the Institute, continuing to some extent his private practice, also. Always interested in firearms, and having made a collection of them and having made a scientific study

of firearms and ballistics, that which was once a hobby has now become a profession with Sawyer. He has for some years been consulting arms engineer, engaged in work including research, design, manufacture, use, repair, and world-markets of sporting and military firearms and ammunition. Sawyer occupies a unique place in the engineering world — there are few arms engineers and none with his international reputation and patronage of foreign governments. His important research work in the mechanics, physics and chemistry pertaining to arms and ammunition has been so confining that he has, of necessity, seen little of his classmates since giving his whole time to his work. He is the author of "Firearms in American History" from 1600 to 1800; "The Revolver" from 1800 to 1865; "Our Rifles" from 1800 to 1821; "United States Single Shot Martial Pistols" and numerous magazine articles. During World War in military service; member of numerous foreign associations. His hobby is collecting antique and other firearms; his recreation, traveling and out-door sports.

SAYWARD, WILLIAM HENRY, JR.; M.D. VII G '94

Married, June 21, 1900, Mary Parkman Robbins. Children, William Sewall, Parkman, John Mathew, Mary.

Home, Wayland, Massachusetts.

THE summer of 1894, after graduating from the Institute, Sayward spent in travelling in England and Europe, entering the Harvard Medical School in the fall of that year. He received his M.D. degree in 1899, and for the four following years practiced medicine in Dorchester, and in the summer of 1903 was physician at the Lookout Club, Isle au Haut, Maine. In 1903, he moved to Wayland, Massachusetts, where he practiced medicine until 1908, with the exception of one year spent as a private student in the Biological Department at the Institute. From 1908, he was for some years private secretary to his father, the secretary of the Master Builders' Association, at 166 Devonshire Street, Boston. For the last few years his mental condition has prevented him from carrying on active work. Sayward was a member of the First Corps of Cadets—1895-1898. He was school physician of the Town of Wayland, secretary of the Wayland Village Improvement Society and a member of the parish committee of the First Parish of Wayland. He is a fellow of the Massachusetts Medical Society.

SCHWARZ, MORRIS LOUIS (1889-90)
Care Hamilton, 255 West 73rd Street, New York City.
Electrician.
Married, September 1, 1894, Laura E. Smart. Child, Inez B.

WE have but occasional glimpses of his career:
1897 — At Portsmouth, New Hampshire, Electrical Expert and Contractor. 1900 — Tampa Steam Way Company, Tampa, Florida. 1903 — Again at Portsmouth, New Hampshire. Now in New York.

SEYFFERT, FREDERICO RAMON (1889-90)

SHAW, HOWARD VAN DOREN; B.A. (1891-92) IV
39 South State Street, Chicago, Illinois.
Architect.
Born, May 7, 1869, Chicago, Illinois.
Married, April 20, 1893, Frances Wells. Children, Evelyn (now Mrs. John T. McCutcheon), Sylvia (now Mrs. Clay Judson), Frances. Grandchildren, three.
Home, 2450 Lake View Avenue, Chicago, or "Ragdale," Lake Forest, Illinois.

"STUDIED in Italy, France and England for a year and a half after leaving Tech. Only came home to get married. One year in office of Jeuney & Mundie. Practiced independently ever since. Have been an old maid too long to take a partner. Trustee of Chicago Art Institute since 1905; trustee United Charities of Chicago since 1906; trustee Illinois College for eight years. Have held no public office. My only war work was building 400 houses for steel companies making ammunition. I tried for dollar-a-year job, but was not considered worth that much. Offered to shade it 50c.—Armistice spoiled the deal. Get abroad as often as possible and practice in the intervals. My proudest achievement was when Mr. Emerson made me a member of the Advisory Committee of the Architectural Department of the Institute. It's a very decent old world if folks would just leave it alone."

Preceding his year with the class as a special in the architectural course, Shaw was a student at Yale, graduating in 1890 with the degree of B.A. He is a fellow, American Institute of Architects; trustee, Art Institute, United Charities of Chicago; member, Executive Art Commission; University, City, Cliffdwellers, Onwentsia, Shore Acres, Yale, Coffee House, and other clubs of Chicago. Gardening and travel are his hobbies.

SHERMAN, LAMSON PARKER, JR. (1890-91) VI

SHURTLEFF, ARTHUR ASAHEL II G '94

89 State Street, Boston, Massachusetts.
Landscape Architect and Town Planner.
Born, September 19, 1870, Boston.
Married, 1905, Margaret H. Nichols. Children, Sidney Nichols, Sarah Parsons, William Asahel, John Perkins, Elizabeth Homer, Alice Warburton.
Home, 66 Mount Vernon Street, Boston, Massachusetts.

"AFTER leaving Tech I went to Harvard University for two years to study architecture, landscape architecture, and civil engineering. I then entered the office of Olmsted, Olmsted & Eliot, of Brookline, under the guidance of Charles Eliot, in the autumn of 1896. While carrying on regular professional work I joined with F. L. Olmsted in starting a course in landscape architecture at Harvard University about 1898. In 1905, I opened an office of my own, 'pulled out' from Harvard University, and married. Since then I have been very busy on professional work, and I am ashamed to say, have attended very few Tech reunions. I was called in by the Institute on Tech Site Committee.

"Wherever I go I run across Tech men and I always feel happy in recalling the good old days in the Rogers Building and environs. I often think of our friend Herbert Stanwood of our class, who died so soon after leaving Tech. He was a fine example of a Tech man. All the men remember him with affection. He was very stockily built and powerful in action. I can see him now sailing up the steep flight to Rogers, two steps at a time, with a bundle of books under each arm, looking right and left slowly as if he were merely thinking about the weather. It is refreshing to recall how boyish we abnormally wise men were in those days. I remember the vast amount of chestnuts eaten during 'Charlie' Cross' lectures on the 'Theory of Light.' Frequently when 'Charlie' reached an impressive point in his lecture a vast collection of chestnut shells on the floor would suddenly resound with a crashing of feet in the rear of the room. This mixture of science and art seemed very crude at the time, but in the perspective of twenty-five years, who would change it? I think Professor Cross himself would be happy to leave all those old events just as they happened.

"One of the best things we learned from Professor Lanza was

the example he set us when something was found amiss in the theory of the dynamics of the steam engine governor. He frankly rewrote a portion of his book and gave us the new pages with his characteristic smile and laugh. I can remember that event much better than I can recall the modulus of elasticity of southern pine.

"Another unforgetable event was the wave motion of settees demonstrated before Professor Faunce by the united action of three or four hundred men. The rhythmic motion of those settees carrying with it the billows of heads and shoulders sweeping like a surf across the classroom, was quite as instructive and useful in after life as his own demonstration of the way to find the shadow of a conical surface on a rhomboidal prism. I suppose all the professors thought the things we were learning were confined to the data in the books and the words which they illustrated on the blackboard. The fact is the personalities of these men cut a very wide swath in the green verdure of our young minds. It was more of an education to know Professor Runkle and to remember his big bristling eyebrows through his gleaming glasses overtopped by his shaggy white hair than it was to know that $\frac{dy}{dx}$ was equal to ....er, what was it anyway? What a godsend it would be if some of those wise and charming men had written a book about us so we could revive our youth and take joy in living the old days over again! A little calculus, a few logarithms, some tables of atomic weights, could be added to the book here and there in the attempt to make it thoroughly scientific. Technical books confined absolutely to superheated steam and conservation of energy rapidly go out of date and are thrown away, but a good book describing the undergraduate would become more valuable as time goes on and would be found on the shelves of the libraries of the coming centuries."

He is president and director, Codman & Shurtleff, Inc.

He served as advisor to the Boston Park and Recreation Department, 1910 to date, and to Fall River, Newton and other cities and towns. He is a Fellow of the American Society of Landscape Architects, City Planning Institute, Boston Society of Landscape Architects; an associate member, Boston Society of Architects; member, Tavern Club, City Club, The Lunch Club and Signet Society.

He has written many professional reports and articles. His amusements and hobbies are talking with friends and family, also carpentering and mountain climbing.

*SHURTLEFF, ARTHUR WEBSTER (1889-91) VII
Died November 23, 1895.

SIMONDS, FREDERIC POND IV G '94
342 Madison Avenue, New York City.
Architect. Associated with, and Manager of New York office of, Thomas M. James Company, Architects and Engineers of Boston.
Born, October 29, 1871, Salem, Massachusetts.
Married, June 2, 1909, Anna C. Bourque. Child, Robert.
Home, 10 Stafford Place, Larchmont, New York.

Simonds has followed architecture since graduation from the Institute, with the exception of the time in war service. He was draftsman for J. Williams Beal of Boston from 1894 to 1900 and for the next eighteen years with Arthur H. Bowditch of Boston. Since June, 1920, he has been associated with Thomas M. James Company, architects and engineers of Boston, early in 1923 becoming manager of the firm's New York office.

From February 13, 1918, to June 12, 1920, he served as Major, in the Quartermaster Corps of the Construction Division; constructing quartermaster—Camp Cody, New Mexico, from March to October, 1918; at Atlanta, Georgia, November, 1918, to May, 1919, over General Hospital No. 6, Mechanical Repair Unit No. 305 and German War Prison No. 1; at Marfa, Texas, from May, 1919, to June, 1920, Big Bend District of the Mexican Border Project. He writes that the biggest stunt given him to do was to lay out a trench, and pipe from 6 inch to 27 inch for sewer system and back fill, 13½ miles of line in thirty-eight days. He belonged to the Massachusetts National Guard from 1895 for over fifteen years, retiring as Lieutenant-Colonel. He is a member, Society of Colonial Wars, Sons American Revolution, Society of War of 1812, Military Order of Foreign Wars, Military Order of World War and American Legion.

SKINNER, FENWICK FENTON I G
Married, March 20, 1915, Charlotte J. Lisman.
Home, 25 Pearl Street, Mt. Vernon, New York.

For several years after graduating he was with the engineering department of the city of Boston on park engineering work. Then he went to Pencoyd, Pennsylvania, as designer of structural work with

the Pencoyd Iron Co. For a number of years he has been with Westinghouse, Church, Kerr & Company, at first on the New York Central Terminal in New York City, and later as field engineer of the New York Terminal Station of the Pennsylvania Railroad.

(From 1909 Catalogue.)

SMITH, ARTHUR BLAKELEY IX G

Retired.

Home, 270 Commonwealth Avenue, Boston, Massachusetts.

SMITH travelled from 1894 to 1896; then entered the wool business with the firm of Albert W. Smith & Company of Providence, Rhode Island, and in 1897 came to Boston to take charge of the Boston office of the firm. He retired several years ago and is living in Boston.

SMITH, CLARENCE WARREN (1889-90)

Address unknown.

FROM 1898 to 1900, he was City Passenger Agent, Burlington Route, San Francisco, California.

SMITH, FREDERICK DEXTER I G

1 Ashburton Place, Boston, Massachusetts.

Chief Engineer and Director, Metropolitan Sewerage Works.

Born, November 9, 1863, Foster, Rhode Island.

Married, February 10, 1884, Sarah Jane Chase. Children, Ethel Rae (Geroy), Horace Edwin. Grandchild, Ethel Greenwell Smith.

Home, 25 Waverly Street, Malden, Massachusetts.

FREDERICK D. SMITH has been with the Metropolitan Sewerage Commission of Massachusetts since graduation, being successively engineering clerk, superintendent, assistant engineer and chief engineer. At present he is also holding the position of Director of Sewerage Works. His hobby is work.

SMITH, REVEREND GEORGE BENTON; A.B. (1889-90)
Methodist Minister.
Born, October 22, 1870, Plainville, Connecticut.
Married, December 6, 1897, Bertha Stevens Dates. Children, Barbara, Theodore, Baldwin.
Home, 170 North Main Street, Liberty, New York.

"ATTENDED Tech only one semester and then prepared for Wesleyan University, Middletown, Connecticut, where after four years' work I graduated in '95 with the degree of B.A. For two years thereafter, was state college secretary of the Illinois Y. M. C. A., from which post in the early winter of 1897, I went to Madras, India, under the International Committee of the Y. M. C. A., to have charge of the work in that city. While there I had part in the erection of the fine five story stone building of that Association, the gift of the Hon. John Wanamaker. I served in the capacity of general secretary in Madras for nearly seven years. I entered the Methodist ministry in the New York East Conference in 1907, and have served churches in New Haven, Connecticut, New York City, and in Liberty, New York, where I am at present the pastor."

He is a member, A. F. & A. M.

SOLEY, WILLIAM ALEXANDER III G '94
444 Harrison Avenue, Boston, Massachusetts.
Treasurer and Director, Soley & Blair, Inc., building movers and contractors.
59 Orient Avenue, Melrose, Massachusetts.

UPON leaving the Institute, Soley began to work for his father, John Soley, building mover, of Chelsea, Massachusetts, and "worked in the gang" during the summer of '94, thereby gaining invaluable practical experience. Later he was also with his father and brother until the death of the former in 1899. Since then he and his brother carried on the building moving business under the firm name of John Soley and Sons, until about 1909, when the above company was formed. "While we do a variety of work, much of which is peculiar and requires some ingenuity and considerable experience, it is hardly in the class of technical or scientific work." He was elected alderman-at-large for the city of Chelsea in December, 1900, and was re-elected in 1902. He is a member of the Review Club of Chelsea. He is a trustee of the Chelsea, Massachusetts, Savings Bank.

SOLOMON, JOHN ISAAC VI G

16-22 William Street, New York City.
Salesman with Lehman Bros.
Member, Consolidated Stock Exchange, New York City.
Born, August 6, 1871, New York City.
Home, 45 East 55th Street, New York City.

FOR several years after graduating from the Institute, Solomon followed his profession of electrical engineering, being employed by the New York Telephone Company, Bryan-Marsh Company, and General Electric Company. As engineer and expert salesman for the two latter companies, he travelled throughout the United States and Canada, with headquarters in New York City. He has carried on in New York City, London, Paris, Amsterdam, Colombo, Ceylon, and Rangoon, British India. He left the U. S. A. in 1906 for Ceylon where, and later in India, he was engaged in pearl fishing and the cultivation of pearls by means of engineering and biological processes developed by him. The world war and after-war world conditions and changed values of currencies forced liquidation of his pearl fishery interests.

Returning to America after we entered the war, he entered the army and served as Captain in the Construction Division.

In 1915, he wrote to the secretary from India:

"To write all about my doings and what brought me originally to this out-of-the-way part of the world to undertake the very unique enterprise of trying to grow pearls would take a very long letter. Suffice it to say it all started through hearing the female members of my family discuss pearls and their very great value and an experiment with the X-Rays to see if a pearl could be detected in an oyster. That, and my dissatisfaction with my position in life, which I considered to be due to conditions in our trust-ridden country. I had found myself in a cul-de-sac and saw no future whatsoever for myself in my profession and no opportunity for a business chance in a business that I thoroughly knew.

"So, one thing led to another and here I am after eight years of struggle with finances, the elements, climate and things and conditions undreamt of by business men and technical men in the United States.

"And in spite of everything I had established an enterprise here by which I am cultivating and producing very beautiful pearls, such that the experts in Paris—the real market for pearls—were

first very much surprised and then later very much shocked when they realized how I might affect the market. In fact, I had got on my feet when along came the Great War, and what the end is going to be now I cannot say.

"If any '93 man on a globe-trotting tour will pay me a visit and stay with me on my island in the Merqui Archipelago, I will tell him a tale which will appear to be rather a Baron Munchausen affair; but it will be a true tale."

Recently he wrote:—"Have had many experiences in every continent. 'Happy is a nation that has no history' is an old saying. That applies also to men." And as to amusements and hobbies—"Having lost most of my money and the golden years of my life in the pursuit of a hobby, I have no longer any hobby and few if any amusements."

In 1908, he wrote an article on Pearl Fisheries for the International Fisheries Congress held at Washington, for which a first prize was awarded and the article was later published as a Government document by the United States Department of Commerce. He has written many articles on pearls and fisheries for Indian newspapers.

He is a member of the Transportation Club of New York and of the Technology Club of New York.

Bemis writes of Solomon:

"When in India I learned quite a bit about the work of our classmate, John I. Solomon (Solly), whose work in pearl culture deserves far greater rewards both in scientific and commercial fields than have ever thus far come to him. The Japanese perhaps were ahead of Solly in these methods of pearl culture. If they did not antedate him, apparently they have unfortunately outstripped him. The war naturally did not stimulate the demand for pearls and I believe in consequence Solly has abandoned this line of work. But I rejoice in calling to your attention this very unique and really great accomplishment of our beloved Solly."

SOUTHARD, FRANK MARSHALL VI G '94

21 State Street, New York City.
Secretary, Kerr Navigation Corporation.
Born, April 14, 1871, Boston, Massachusetts.
Married, October 29, 1923, Minnie Louise Nightingale.
Home, 64 Clark Street, Brooklyn, New York.

FOR one year after graduation, Southard was with the Franklin Trust Company, the following year with the Brooklyn Edison Company. From 1896 to 1915, he was a member of the firm of Southard and Company, wholesale lumber dealers. Since 1916, he has been secretary and director of various steamship companies. He is a member of Sigma Chi, Hammer and Tongs and K. O. S. fraternities and the Crescent Athletic Club.

*SOUTHER, JOHN KERFOOT (1889-91) II
Died December 6, 1909.

AT the time of his death, Souther was an artist living in Washington. He was married January 15, 1902, and had three children.

SPEER, JAMES RAMSEY II G
President, The American Adamite Company, Pittsburgh, Pennsylvania.
Manufacturer; farmer.
Born, July 23, 1870, Pittsburgh, Pennsylvania.
Married, April 14, 1898, Jeannette Lowrie Childs. Children, Gertrude Childs, James Ramsey, Jr.
Home, Wilderness Farms, Trappe, Talbot County, Maryland.

"IN my junior year I worked during the summer in the Bessemer department of Shoenberger Steel Co., Pittsburgh, Pennsylvania, during the steel workers' strike. I ran the steel crane—some would say I started active work as a 'strike-breaker' and yet my sympathies have always been with labor. My only regret being that the 'Captains' of labor organizations are for the most part of such a sorry, selfish type.

"After graduation I started as works clerk in the Blast Furnace Department of Shoenberger Steel Company and realized shortly how little I knew and the vast amount the 'practical' man could teach me. The blending of the 'theoretical' and the 'practical' became an obsession with me and is to this day. From my experience, after a life in the steel mills, I feel that theory must give way to practice where there is a conflict between the two.

"In 1894, was sent to Mesaba Range to test and further develop an ore property for Shoenberger Steel Co. It was developed by them and their associates as 'The Sellers Mine'; in later years

to show the largest tonnage of any Mesaba mine of its surface proportions. In 1896, after much education and many all-night vigils with sick furnaces, I was put in charge of the Blast Furnace Department. In 1897, the engineering and construction of the Blast Furnace Department and Steel Works were also placed in my charge. In 1898, I was made general manager of Shoenberger Steel Co.

"In 1899, The American Steel & Wire Co. purchased this company. They ran it as an entirely independent company for about eighteen months. During this time, I was vice-president and general manager, operating the business for them until the fall of 1900.

"In 1899, my brother and I, with associates, purchased The S. Jarvis Adams Co., manufacturers of pipe balls and vehicle axle boxes. I was vice-president of the company until 1911. In that year its name was changed to Pittsburgh Iron and Steel Foundries Co., largely manufacturing 'Adamite', of which I was a patentee. I became president of the Foundries Company at this time. In 1920, I became chairman of Board and continued in this capacity until July 1st, 1922, when this company was merged with Mackintosh-Hemphill Co., as was also A. Garrison Foundry Co., roll manufacturers, which I secured and turned over to Mackintosh-Hemphill Co.

"In 1904, helped organize and became president of Brownsville Glass Co., building a plant at Morgantown, West Virginia, for the manufacture of wire glass. This business was shortly sold, together with patents, to Mississippi Wire Glass Co. of New Jersey.

"From 1904 to 1906, conducted experiments with mechanical glass blowing apparatus, taking out several personal and joint patents; all were later sold to American Window Glass Co.

"In 1905, helped organize Midland Steel Co., and helped develop and plan town of Midland, Beaver County, Pennsylvania, about 36 miles below Pittsburgh, on the Ohio River. Vice-president of Midland Steel Co. from its inception until 1911, when it was sold to Crucible Steel Co. of America. This *was* pioneering. We started with about 1,000 acres of farm land and today Midland is one of the best and most thriving steel towns adjacent to Pittsburgh.

"As you will see, my activities have been somewhat varied, but mostly always close to the iron and steel industry.

"I have taken out a good many patents. The electric stripper principle being one of the best, from which I barely received expenses. Many of the patents had to do with the glass industry. Of my later patents, 'Adamite', a high-carbon nickel-chrome alloy,

is the best. It has set the standard for performance of rolls and heavy duty castings in the Iron and Steel Industry. I am proud of it. Helping to put Midland on the map of the United States is the most noteworthy thing I have ever done. It is a fine town today.

"During the war, I was a director and officer in all of the large German Chemical Companies, representing the Alien Property Custodian—The Bayer Co.; Heyden Chemical Works; Berlin Aniline Works; Kali Color and Chemical Company, etc. Thanks to American common sense and initiative they produced more for us (these manufacturing plants) than for their former owners.

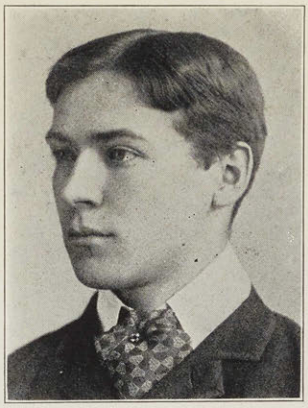
"In 1911, I purchased a tide water farm of some 400 acres in Talbot County, Maryland, a part of the far-famed Eastern Shore. We have lived here ever since 1912. It is a 'great life'—this simple one; you are not tempted to 'weaken' so often. The cartoonist is right when he says, 'it is a great life if you don't weaken.' There is a charm in the simple things; the complexity of the various complexes does not bother us here. It is one of the best places in the world to find happiness and to bring up children.

"The latch string of our Colonial farm house hangs in a handy place for our friends of yesterday and today. 'Come In! You are welcome.' Our place, 'The Wilderness', was put on Talbot County maps about 1667; today you can find it in the Automobile Blue Book."

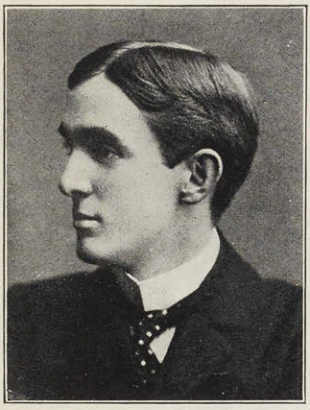
Besides being president of the American Adamite Company, Speer is a director of the Mackintosh-Hemphill Company and of the Western National Bank of Pittsburgh, the Easton National Bank of Easton, Maryland; and president of the Liberty Products Company, Inc., of New York City. He is a member of the American Society of Mechanical Engineers and Engineers' Society of Western Pennsylvania; Pittsburgh Club and Duquesne Club of Pittsburgh; Chesapeake Bay Yacht Club and Talbot County Club of Easton.

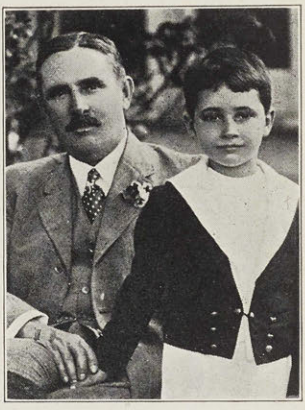
Speer edited "Chronology of Iron and Steel," published in 1920; this is a valuable contribution to the history of iron and steel. His hobby is farming. In reply to the question—"Have you benefited from your Tech training?" he writes:—

"Yes! To the extent that this training, coupled with an inheritance of common sense and a capacity for perseverance, has helped me to win such average success as I have accomplished. This training has added much to my peace of mind and therefore to my happiness, for without it I should have doubted many things, whereas with it, I am much more appreciative of all that is of a

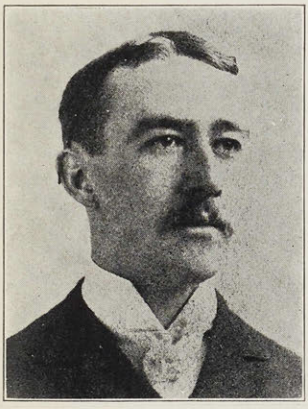


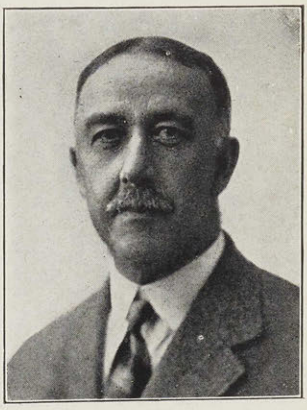
Frank M. Southard



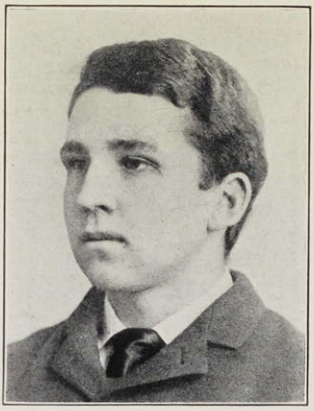


J. Ramsey Speer



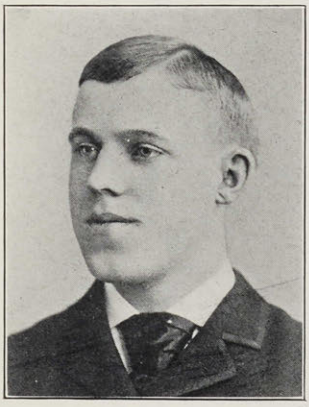


Charles M. Spofford

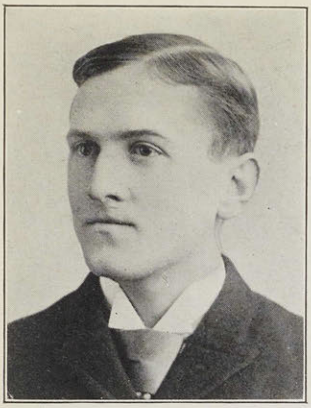


*Herbert W. Stanwood

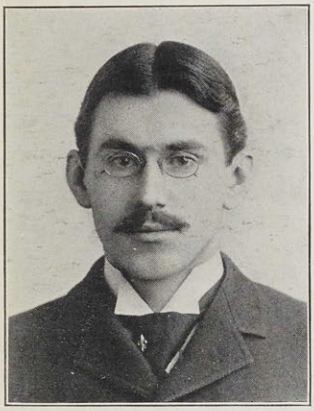
George W. Stose

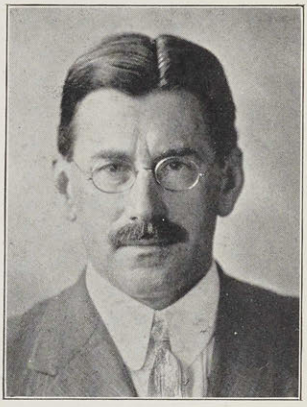


Lovell B. Stowe

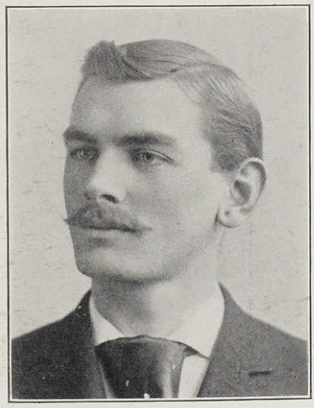


Fred B. Studley

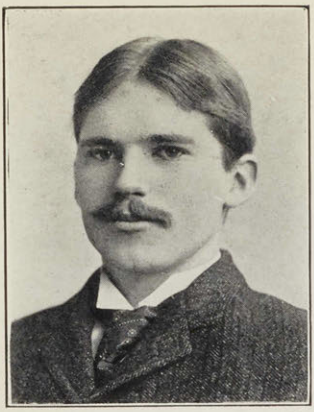


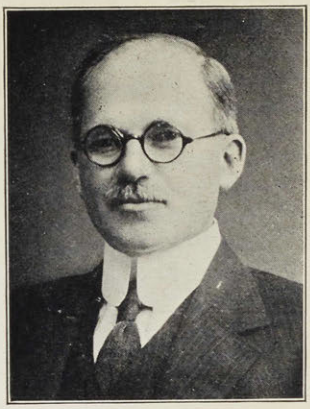


Frederick C. Sutter

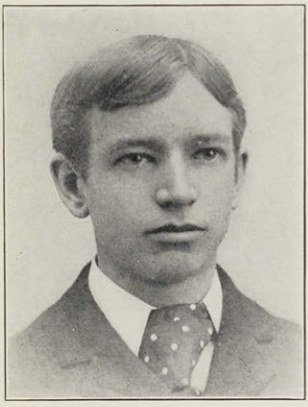


*Kilburn S. Sweet

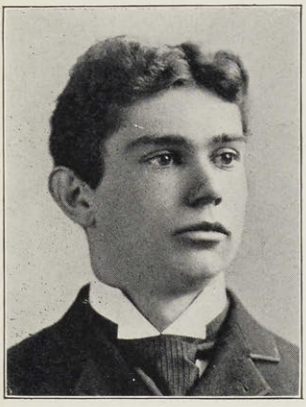




Charles W. Taintor



Alfred C. Thomas



Percy H. Thomas

Winthrop L. Tidd

constructive type both in men and methods. Being more appreciative of the past and present and the possibilities of the future, of both men and things generally, contributes greatly to much more of happiness. Pope makes it 'our being's end and aim'; he is right—I agree."

SPOFFORD, CHARLES MILTON I G

Massachusetts Institute of Technology, Cambridge, Massachusetts, also 200 Devonshire Street, Boston, Massachusetts.

Hayward Professor of Civil Engineering, in charge of Department of Civil and Sanitary Engineering, Massachusetts Institute of Technology; member of firm, Fay, Spofford and Thorndike, consulting engineers of Boston; director, G. A. Swalm & Son Company of Middletown, New York.

Born, September 28, 1871, Georgetown, Massachusetts.

Married, February 5, 1896, Florence Corwin Swalm (deceased). Child, Christine Swalm (Mrs. Walter J. Beadle).

Home, 61 Colbourne Crescent, Brookline, Massachusetts.

FOLLOWING graduation, Spofford took some graduate work at the Institute during 1894. In 1895-96, he was draftsman with the Phoenix Bridge Company at Phoenixville, Pennsylvania, and also in the summers of 1897, '98 and '99. He was at the Massachusetts Institute of Technology from 1896 to 1905, as assistant in civil engineering for the first year, instructor for the next six years and for the two following years as assistant professor. From 1905-09, he was professor of civil engineering at the Polytechnic Institute at Brooklyn, New York, returning in September, 1909, to the Massachusetts Institute of Technology as Hayward Professor of Civil Engineering, in charge of the Department of Civil and Sanitary Engineering. He has been a member of the firm of Fay, Spofford and Thorndike, consulting engineers of Boston, since its organization in 1914. Since 1900, Spofford has been identified with numerous important engineering works, including design of certain bridges, investigation and report upon others; was expert engineer upon investigation of strength of Blackwell's Island Bridge in 1908; member of special commission on assessment of real estate for Cambridge, Massachusetts, in 1915; member of Boston Terminal Commission, 1915-16; member, Advisory Committee on Charles River Bridges for the Metropolitan District Commission of the Commonwealth

of Massachusetts in 1921, and upon the proposed new Harvard Bridge in 1923.

During the war, with his partners, he designed and gave engineering supervision to the construction for the war department of the $25,000,000 Army Supply Base in Boston for war purposes; they also gave engineering advice to the Red Cross, Council of National Defense and the United States Shipping Board.

Spofford writes:

"One of my most interesting experiences was a trip to Central America in 1910, to investigate for the United Fruit Company the effect of earthquakes upon structures in the city of Cartago, Costa Rica. Not only was Costa Rica visited but also Guatemala, Salvador, Panama and Jamaica. During the trip one of the highest volcanoes in Central America was climbed and a simultaneous view obtained of the Atlantic and Pacific Oceans. Other travels have included Europe, from Sicily to England, with a side visit to Africa, with considerable time during two summers spent among the Alps, Jura and Tyrol mountains. Have visited and climbed Mt. Katahdin in Maine—a mountain not much visited but extremely interesting; and, with daughter, have been marooned in stage house at Mt. Washington in a severe blizzard for two nights and a day, being caught in snow storm at top of head wall, Tuckerman's Ravine.

"Services on political commissions have involved travelling about United States and Canada in private cars, with politicians and business men, with entertainment at banquets, etc., by city and state officials.

"Educational work at Technology I find to be of great interest, and I am particularly fond of the teaching side of the work."

He is a Fellow, American Academy Arts and Sciences; member, American Society Civil Engineers; Boston Society Civil Engineers (ex-president); Society Promotion Engineering Education; American Society Testing Materials; American Association Port Authorities; American Association Advancement of Science; New York Railroad Club; Central Railroad Club; University Club, Engineers Club, Chamber of Commerce, Boston; Society of Colonial Wars; Alpha Chi Rho fraternity and Tau Beta Pi, honorary engineering fraternity; and is a member of the Standing Committee, "Old South Society in Boston."

He is the author of "Theory of Structures" and numerous contributions to technical publications. He enjoys nearly all out-door and in-door sports and amusements, but has no special hobby.

*STANWOOD, HERBERT WINTHROP (1889-94) II
Died March 9, 1899.

STAPLES, WALLER REDD; B.L. (1891-92) I
Terry Building, Roanoke, Virginia.
Associate Trial Counsel, Norfolk and Western Railway.
Attorney-at-Law.
Born, September 14, 1871, Patrick Court House, Virginia.
Married, January 22, 1901, Olivia B. Trout. Children, Olivia B., William D.
Home "Tilikum", Roanoke County, Virginia (Roanoke, Virginia, R. F. D. 2).

STAPLES began his career as an engineer, being with the United States Engineering Corps on the construction of the Hennepin Canal, Mississippi and Illinois, from 1892 to 1894; and from 1894 to 1900, was inspector of public service in the Interior Department, Washington, D. C., on hydrographic survey, Charleston, South Carolina Harbor, for the United States Coast Survey and surveying public lands in Washington, Oregon, Montana, Wyoming and Dakota. During this time he studied law at the National University, receiving the degree of B.L. in 1899. For the following eight years he practiced law. In 1909, he was elected Judge of the Corporation Court of Roanoke by the Legislature of Virginia. In 1914, he returned to private practice and since 1922, has given his time exclusively to railroad practice. He calls our attention to the fact that he was defeated for the Supreme Court of Appeal for Virginia in 1914; that since 1902, he has been "first mate of the good ship Home". He saw Stose in 1898, and Goetzmann in 1918. He believes he benefited much from his Tech training, and claims his most noteworthy or interesting experience was receiving "a few fat fees". Staples was brought prominently before the public by presiding at the famous trial of the Allen boys, mountaineers who shot-up a previous court, and who were convicted of the murder of judge, sheriff, Commonwealth's attorney and others at Hillsville, Virginia, on March 12, 1912. Staples was designated by the Governor of Virginia to preside at these trials, which lasted from March 13 to December 12, 1912. Previous to his years at Tech, Staples was a student at Washington and Lee University from 1888 to 1890. He is a member of the Virginia State Bar Association; and honorary member Phi Beta Kappa, William and Mary College (1919); a member of the Roanoke Ro-

tary Club, of which he was president in 1918-19. He has written many law briefs, of which he writes "many apparently never read"; he has made addresses before the International Rotary and "several to appellate Courts, judges and juries, frequently sedative". His chief amusement is "wondering why" and in politics he is a "reactionary Bolshevik"—all of which shows he has not lost his sense of humor.

He writes:

"Fred Fay has been Secretary Class '93 *ab initio*. Has disbursed about Sixteen Dollars for printing and postage in communications to me alone. Efficient, patient and never discouraged by my apparent lack of appreciation."

*STARKWEATHER, GEORGE MATHEWSON (1889-90)
Deceased.

STEARNS, HENRY FOSTER (1888-90)
Dominion Wadding Company, Montreal, Quebec.
Cotton Manufacturer.

STEARNS has been with the Dominion Wadding Company of Montreal since 1898, or earlier.

STEBBINS, ELWYN WILFRED (1889-94) I
814 Mills Building, San Francisco, California.
Mining Engineer.
Born, in 1870, at San Francisco, California.
Married, Marian Long. Children, Keith, Margaret, Edith.
Home, 6537 Chabot Road, Oakland, California.

"AFTER leaving the M.I.T., obtained employment with the Southern Pacific Railroad Company and worked in their engineering force in California, Arizona and New Mexico for about five years, the latter part of the time as assistant to the resident engineer of the Western Division at Oakland. Typhoid fever, with a long and tedious convalescence, next intervened. Upon complete recovery, being desirous of entering the mining field, I took a year and a half at the University of California and graduated from their mining college in 1901." He was employed for a time by the Liberty Bell Gold Mining Company at Telluride, Colorado, and for the last few years has been a consulting and mining engineer at San Francisco. He is a member of the Chi Phi fraternity. He is a member of the

American Institute of Mining and Metallurgical Engineers and other clubs and fraternal orders. Golf is his hobby.

STEBBINS, LONDA LOLETA
(See Fletcher, Mrs. Londa S.)

STEVENSON, JOHN ROBERT (1887-90) III

WE have had no address for Stevenson since 1898, when he was with Hemenway & Brown, Guia Commercial, 47 Cedar Street, New York City.

STOCK, AUGUST C. '95 (1890-92) IV

STOSE, GEORGE WILLIS I G
United States Geological Survey, Washington, District of Columbia.
Geologist, United States Geological Survey and Editor of Geologic Maps.
Born, October 5, 1869, Chicago, Illinois.
Married, December 2, 1896, Miss Sarah V. Kyte. Children, Harold Frederick, Charles Willis.
Home, 801 Taylor Street, Washington, District of Columbia.

"ON graduating as civil engineer with Class of '93, I returned to Tech in 1894 and took a year of geology, and conducted a course in geology at the Civil Engineering summer school. I secured an appointment in the United States Geological Survey field force in August, 1894, and was put on the permanent geologic force at the close of the field season. I have occupied various positions on the geologic staff of the Federal Geological Survey since then, but preferring field study to administrative work, I have done constructive work and had only three or four men under my direction. Although I have not applied my 'bridge structures' and other mathematics in geology, my Tech training in applied math has helped me to understand and picture in my mind the mechanics of geologic structures, mountain building, and underground structure, and I have specialized along this line. So I have remained with the United States Geological Survey, where the work is to my liking, although the pay is far less than that of Oil Developing Companies which would gladly have used my services, geologic knowledge, and experience.

During the war, I was engaged in the search for deposits of manganese, a war mineral, as the government representative.

"I have been president of the Geological Society of Washington, and am vice-president of the Washington Academy of Science. I have been secretary and vice-president of the Petworth Citizens' Association. I have also been active in church work and civic betterment, and work amongst boys."

Stose has written numerous articles, bulletins, folios and reports, accompanied by maps on geologic subjects, published by the United States Geological Survey, Pennsylvania, Virginia and Tennessee State Geological Surveys and scientific journals. He is a member of the American Association for the Advancement of Science, Geological Society of Washington, Geological Society of America, Washington Academy of Science; Cosmos Club of Washington and Petworth Citizens' Association. For amusement, he prefers "hiking and tennis. I do not own a Ford or an auto, so I hike and keep young and subdue my waistline". Both sons have graduated from Tech and have received S.B. and M.S. degrees!

STOWE, LOVELL BAKER VI G

Box 119, Boston, Massachusetts.

Commercial Methods Engineer with the New England Telephone and Telegraph Company, 50 Oliver Street, Boston, Massachusetts.

Born, August 26, 1871, Caryville, Massachusetts.

Married, September 8, 1897, Mildred Durham.

Home, 164 Warren Street, Allston, Massachusetts.

"ALL of my activities have been confined to the Telephone Company, starting in as groundman, then night operator, trouble shooter, manager, cashier and district manager at various points in New England. I have tackled one quasi-public office—that of slide trombonist in the White River Junction, Vermont, Silver Cornet Band, which later blew up.

"My Tech training has served me well. Without it, I would have been a millionaire profiteer; with it, I have plugged all these years for our company and helped it grow from 8,000 to 800,000 stations with saturation still an unknown quantity.

"I have had very little opportunity to contact with other '93 men outside of an occasional visit from Solomon, who ought to write his 'Romance of Pearls' and Charlie Taintor, with whom I

had the pleasure of collaborating on a joint thesis entitled 'The Ins and Outs of a Stanley Transformer as Determined from the Rate of Drip of a Circumambient Ice Bag.' "

He is a member of the Telephone Society, Boston, Telephone Pioneers of America and Aberdour Lodge (Masonic). He is the author of "Commercial Practices," which is printed but not yet published. Radio is his hobby.

STUDLEY, FRED BUTLER VI G

Gardening and Cranberry Culture.

Born, July 2, 1871, Rockland, Massachusetts.

Married, September 21, 1894, Susie A. Magoun. Child, Russell H. (deceased).

Home, North Duxbury, Massachusetts.

STUDLEY was in the engineering department of the American Telephone and Telegraph Company at Providence, Rhode Island, in 1894-95. On account of a bad nervous breakdown he was obliged to give up all work in 1895.

Although he has not returned to engineering, he has so far regained his health as to enter the agricultural business at his home in North Duxbury, Massachusetts. He has had very little contact with '93 men, but writes: "Although I have not benefited in a financial or professional way, I value highly the training I received at Tech." He raised vegetables as his war contribution.

SUTTER, FREDERICK CHARLES VI G

Retired from active business. Interested in automobile and real estate business.

Born, 1870, Detroit, Michigan.

Married, 1894, Emily Ward Mayhew. Children, Frederick M., Samuel M., and David M.

Home, 2981 West Grand Boulevard, Detroit, Michigan.

FROM the fall of 1893 to 1898, Sutter was in the shops of the Westinghouse Electrical and Manufacturing Company. In May, 1898, he organized the Pittsburgh Transformer Company. He has been in Detroit for several years. During the war, Sutter was supervisor of production, representing the Ordnance Department at various factories in Detroit. He is a member of the University Club, Detroit Boat Club, Ingleside Club, Prismatic Club, Detroit Automobile Club. His hobbies are automobile touring, boating, radio experimental work. His son David is now a student at Tech.

SWANTON, WALTER IRVING; A.B. I G

United States Reclamation Service, Interior Building, Washington, D. C.

Assistant Engineer, United States Reclamation Service.

Born, September 6, 1869, St. Joseph, Missouri.

Married, October 20, 1904, Lucy Cerise Ross. Children, Lucy Ada, Lily Edith, Walter Frederick.

Home, 1464 Belmont Street, Washington, D. C.

"My first job after graduation was with the old Boston & Albany Railroad as rodman, then bridge draftsman and then inspector of bridges and masonry from Boston to Palmer until the fall of 1899. Then with the Union Bridge Company at Athens, Pennsylvania, as detail draftsman. Then to Norfolk Navy Yard as inspector of building construction. Next draftsman at Edgemoor Bridge Works, Edgemoor, Delaware; then structural draftsman, League Island Navy Yard, being transferred to Boston and Brooklyn Navy Yards, Bureau of Yards and Docks. In 1903, went to Washington as engineer draftsman in the Supervising Architect's Office of the Treasury Department. In 1905, I was transferred to the United States Reclamation Service as assistant engineer; most of the time in the Washington office, but out one summer on construction of large earth dam at Belle Fourche, South Dakota. One summer I was out on the Government Safety First Train, on the Katy, B. & O. R. R. and the Union Pacific Railroad as far west as Salt Lake, explaining the work of the Reclamation Service.

"I regret that I had no part in the present or, rather, recent war, as I was too old and the only thing I did was to buy a bond or two and serve on the Liberty Loan Committee as chairman of our Bureau.

"Have helped in gathering together a library and collection of data on the subject of irrigation for reference purposes.

"Have had a house built and am living in it—don't try it."

Swanton studied at the National University Law School, receiving the degree of A.B. He is a member, American Association of Engineers, Washington Society of Engineers; Columbia Heights Citizens' Association; Federal Employees' Union, Local No. 2, Federal Lodge No. 1 of Masons. He compiled Bulletin No. 2, 1918 Series of the Bureau of Education, entitled "Guide to U. S. Government Publications," with chart of Government, and published articles in

the Reclamation Record official organ of U. S. Reclamation Service and in the Bulletin of the Associated General Contractors.

He writes that he has no hobby except working for the spread of the Single Tax, as explained by Henry George in "Progress and Poverty."

*SWEET, KILBURN SMITH I G

Died July 15, 1904.

Married, September 19, 1900, Jessie L. Johnson. One child.

THE following account of Sweet is taken from the *Technology Review* of October, 1904:

It is safe to say that to no one who has been connected with the civil engineering department of the Institute of Technology in recent years, either as teacher or as student, will the thought of the recent death of Mr. Kilburn Smith Sweet fail to bring kindly remembrances of personal intercourse with him and sincere regrets for his loss. To those who often know in part, but seldom can know fully, the difficulties under which many young men have labored who come to the Institute for their education, the life of this man must seem typical and full of interest.

He was born in Ramsey, Minnesota, February 25, 1872. His father, Captain Thomas M. Sweet, served through the Civil War in the Twenty-fourth Regiment, Massachusetts Volunteers. In 1867, he went West and took up farming, hoping to regain his health, which had been ruined by four years of army life. He was obliged to give up after a few years, and returning East, died in Edgartown, Massachusetts, in 1873. His wife, Laura Allen Kendrick, was born in Bangor, Maine, and died at Edgartown in 1875, leaving four sons, of whom Kilburn was the youngest.

Left an orphan at three years of age, with a constitution far from robust, Mr. Sweet's life was full of evidence of the generous faithfulness of friends. His resources at the outset consisted mainly of a small pension and his proportionate share of a fund subscribed by the officers of his father's regiment for the family of their comrade.

Until about ten years of age, he was in the care of a relative of his mother, during which time he attended school first in Jamaica Plain and later the Rice Primary School in Boston. A part of one year was then spent at a boys' boarding school in Boston, from which, in delicate health, he went to live with another relative, Mrs.

Parmelia A. Case, in Kenduskeag, Maine, and remained with her, visiting one year in Kansas City, until he was seventeen. To the motherly care and faithful Christian training of this devout woman, during those important years, he owed very much. He attended the village high school at Kenduskeag, doing his work with a thoroughness that soon brought its reward, and was graduated early in 1889.

In April of that year, he came to Boston to attend the Bryant & Stratton Business College. While waiting for school to open in the fall, he was employed for a short time as errand boy in the office of the Institute of Technology. He attracted the attention of one of the officers of its Corporation, who encouraged him to take its entrance examinations, and assisted him to prepare in the few days that remained before they were given. He passed the examinations in all subjects except French, which he had never studied; and his new-found friend personally assisted him to make up this deficiency during his freshman year. His expenses during the course at the Institute were met by his own summer earnings, by scholarship funds, and by the contributions of friends.

On coming to Boston to live, the young man found a homelike boarding-place among relatives, one of whom was for years his room-mate and a wise counsellor. He attended church regularly at Berkeley Temple, and before long became a member. He entered heartily into the social and religious life among the young people, finding in the society of Christian Endeavor, of which he became president, a fine opportunity for the unfolding and strengthening of his character and the perfecting of the gentle courtesy of manner which made him a man one liked to meet. Here he made the acquaintance of Miss Jessie Louise Johnson, who was destined to become his wife. They were married in September, 1900, and settled in Allston, entering at once earnestly into the work and worship of the Allston Congregational Church.

Mr. Sweet was graduated from the Institute in the course in civil engineering in 1893, and returned in the fall of that year as assistant. Later, he became instructor in civil engineering, which position he held to the time of his death, his duties being mainly in connection with the work in hydraulics, stereotomy, and surveying. Few summers, if any, passed in this period without his devoting the vacation season to practical engineering work. He was thus employed on surveys, investigations, or construction for the city of Newton, the towns of Winchester and Hopedale, the Associated

Factory Mutual Insurance Companies, the Massachusetts Water and Sewerage Board, the Committee on Additional Water Supply for the City of New York, and the United States Geological Survey. Shortly after the Technology reunion, he began summer work for Mr. Leonard Metcalf, of this city, but increasing trouble from a physical infirmity which for years had beset him, and against which he had fought perseveringly and patiently, soon compelled him to rest. Within a couple of weeks thereafter it suddenly became acute, and early on July 15, he passed away, apparently without pain or premonition that the end was near. The immediate cause of his death was pronounced to be acute congestion of the brain.

He was a man of sterling character, sympathetic and ever helpful to others, quiet and gentle, yet courageous in a high degree, clear in thought and efficient in action. He merited and has won an enduring place in the admiration and love of his many friends.

DWIGHT PORTER.

TAINTOR, CHARLES WILSON VI G

Barberry Hill Farm, Topsfield, Massachusetts.
Financial Agent for managing investments and farming.
Born, October 23, 1871, New Rochelle, New York.
Married, January 18, 1905, Caroline Tileston Hemenway. Children, Ellen Hemenway, Charlotte Wilson.
Home, Barberry Hill Farm, Topsfield, Massachusetts, or 149 Beacon Street, Boston; also, Yuma, Arizona.

FROM 1893 to 1900, Taintor was with the New England Telephone Company, with the exception of sixteen months in 1897-98, when he made a trip around the world. From 1900 to 1904, he was connected with the General Electric Company, spending two years at Schenectady and two years in the Foreign Department at the London office. Since 1905 he has been engaged in financial business, first as a bond salesman for William A. Read Company, later as manager of the Bond Department of Tucker, Hayes & Company, and finally opening his own office. In 1909, Taintor prepared and published "Analysis of the Earnings of the United States Steel Corporation," a rather remarkable statistical work, which brought out in compact form a large amount of information about the affairs of that corporation. He has also published various political and financial articles.

On August 19, 1922, Taintor with his wife and two daughters started on another trip around the world by way of the Canadian Rockies, visiting Japan, Korea, North and South China, Manila, Java, India, through the Suez and to Egypt. From Japan he wrote

"I saw Baron Maki in September, when he brought his wife—a quiet, attractive Japanese lady—and his son, Nagatoshi, 4 years old, to call on Mrs. Taintor, the girls and myself at the New Imperial Hotel in Tokyo. Maki's face, a little bronzed, a little older than twenty-five years ago, but the same responsive brightening and cheerful laughter of the days at Tech, nearly thirty-three years ago. I last saw Maki on my previous visit to Japan in 1897. He was not married then—now he has a very attractive daughter and she has a daughter eleven months old. Maki has a beautiful house—Japanese and European quarters, garden, tea ceremony house and quite a good deal of land—at Shiba in Tokyo and there we were all entertained with tea and cakes, and all his family were present—Toshi, an active, vigorous boy of four with a good physique and fine head. Maki, happily surrounded by his family, makes a group I shall always remember with pleasure."

From Egypt he wrote that he met Bremer, '93, at Luxor and E. E. Blake at Calcutta and at Bombay. He returned by way of France and England in time to attend the Thirtieth Reunion of our class. During this trip he carried with him a list of the class, to most of whom he sent cards from various points along the way.

During the late war, he served in the Massachusetts State Guard, 1917 to 1920; during the Boston police strike, as a member of the Topsfield and Boxford Machine Gun Company, he was at the headquarters, the Charlestown Armory, for six weeks. He was at the Plattsburg training camp, 1915 and 1916.

Of Tech scientific training he writes that it helped him earn a living and approach matters from a fact-searching point of view; and of what he has accomplished—"I think I am accomplishing a healthy and actively full life of very varied experience."

He is a member of the Exchange, Engineers and Union Boat Clubs of Boston and of the Myopia Hunt Club of Hamilton.

His amusements and hobby are paleontology, geology, travel and hunting; development of semi-tropical agriculture in Yuma, Arizona; and, meeting men of Tech '93.

TAYLOR, CHARLES MALCOLM II G

Drafting Room, Navy Yard, Boston, Massachusetts.
Supervising Draftsman, Navy Yard, Boston, Massachusetts.
Trustee, Weymouth Savings Bank, Weymouth, Massachusetts.
Born, March 16, 1870, Chelsea, Massachusetts.
Married, April 23, 1900, Alice Humphrey.
Home, 363 North Street, East Weymouth, Massachusetts.

"SOON after graduation, I obtained employment with the Atlantic Works, East Boston. This position I retained for over a year, when the necessary curtailment of the force brought about my discharge. For the next two years, I was forced to seek employment several times and had rather a hard time of it. I had a short connection with the Fore River Ship & Engine Company, then located at East Braintree, Massachusetts, also a very short and unpleasant one with the Herreshoff Company at Bristol, Rhode Island, and a summer in Newton, Massachusetts, working as sewer inspector. A year with the Edison Electric Illuminating Company, Boston, on the underground department was followed by over two years with the General Electric Company, Lynn, Massachusetts. This latter was during the Spanish War time. Then I resigned from the General Electric Company to take up again ship drafting with the Fore River Shipbuilding Company, where I remained for about two years and finally took Civil Service examinations for my present position which I have held now over twenty-one years.

"I have never sought public office, principally because my position virtually forbids it. I always intend to vote and express my loyalty to my country. My position as Trustee of the Weymouth Savings Bank may be looked upon as a quasi-public office.

"I do not recall any especial work during the Spanish War. During the World War I was deeply engaged in fitting out German ships as transports, repairing and building ships for the navy, and in short, doing whatever a man in my position was given to do at the Navy Yard. My last war work, post-war work more properly, was to act as assistant to Professor Hovgaard at M.I.T. for nine months of the school year of 1919-20, an experience which is pleasant to look back upon. I also had the pleasure of giving a class of six officers at the Navy Yard instruction in theoretical naval architecture in preparation for an examination for permanent ratings as construction officers. As an aftermath of the war I have been conducting experiments on voice tubing for the purpose of finding the

source of echoes and ways to avoid them, also to increase efficiency of the tubes.

"It is hard for me to state what benefit I have received from my Tech training. No person can receive four years of such intense mental training without obtaining a broadened and deepened mental atmosphere, and a keener outlook upon all the problems of this world, engineering, political and social. I have met but few '93 Tech men since graduation but constantly meet Tech men of other classes.

"Perhaps I am a failure as a Tech man but I can only say that I have done what I could with the inheritance and training given me years ago. Today I am passed middle life, as all '93 men are, and realize I have made little advancement in position and none in public notoriety, but I have not yet lost heart, and will accept any opportunity looking towards success which I may be fortunate in seeing."

He is a member of the American Society of Naval Architects and Marine Engineers; Appalachian Mountain Club and Independent Order of Odd Fellows.

"My only hobby is hiking, especially mountain climbing. I have hiked and climbed a great deal in New Hampshire, Maine, Vermont, Massachusetts. I have made one trip, including mountain climbing, to North Carolina and one to Colorado, Utah and Wyoming."

TENNEY, WINTHROP PARKER VI G

80 Maiden Lane, New York City.

HE has held various positions in connection with the insurance business and for some time was engaged in inspection for the Underwriters' Bureau of New England, which represents the most important fire insurance companies in New England. He has written short articles for various fire insurance papers, and pamphlets.

THOMAS, ALFRED CLARENCE VI G

104 Broad Street, New York City.
Telephone Engineer with New York Telephone Company.
Born, August 24, 1871, Brandon, Vermont.
Home, 34 Jefferson Avenue, Brooklyn, New York.

THOMAS has been with engineering departments of the New York Telephone Company and the New York and New Jersey Telephone

Company since September, 1893, with headquarters in New York and Brooklyn. During the war, he did work in connection with providing telephone facilities for training camps, navy yards and other Government activities.

He answers our question as to the benefit he derived from Tech training—"it taught proper methods of reasoning and correct thinking."

He has had very little contact with Tech men since leaving Tech. Before entering Tech, Thomas studied at Miami University.

He is a member of the American Institute of Electrical Engineers and of the New York Electrical Society. His recreations are the theatre, travel and card-playing. He is still single.

THOMAS, PERCY HOLBROOK VI G

120 Broadway, New York City.
Consulting Electrical Engineer, Guggenheim Brothers.
Born, March 31, 1872, Boston, Massachusetts.
Married, September 6, 1900, Isabelle Mary Patten. Children, Eleanore H., Katharine L.
Home, 346 Park Street, Upper Montclair, New Jersey.

FOR ten years, beginning in 1893, Thomas was with the Westinghouse Electrical Manufacturing Company, of Pittsburgh, where he specialized on high tension matters, devoting much time to research and making several inventions. In 1896-97, he made a trip to Brazil in connection with a power transmission plant. From 1903 to 1907, he was chief electrician of the Cooper-Hewett Electrical Company, where he did much toward the development of the mercury vapor lamp. From 1907 to 1916, consulting engineer—from 1907 to 1911 being senior partner in the firm of Thomas & Neall, electrical engineers of New York and Boston, on general electrical engineering work, but making a specialty of high tension work; from 1911 to 1916 in independent consulting practice along same lines in New York City. He has been consulting electrical engineer for Guggenheim Brothers since 1916. During the war, he was consulting expert to the Power Section of the War Industries Board, on electrical power matters.

Thomas has been very active in the American Institute of Electrical Engineers, having served as chairman of the Meetings and Papers Committee, twice a member of the High Tension Trans-

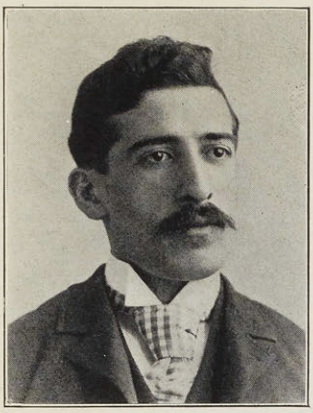
mission Committee; a member of a committee on Constitutional Amendments, chairman of the Board of Examiners, and is representative of that society on several joint committees with other societies. In the government of that society has served on the board of managers, and as vice-president. Besides being a Fellow of the American Institute of Electrical Engineers, Thomas is a member of the American Society of Mechanical Engineers, Engineers' Club, the Technology Club of New York, Bankers of America, the Delta Upsilon fraternity and the Commonwealth Club of Montclair, New Jersey. He has written many papers and delivered numerous addresses on technical subjects.

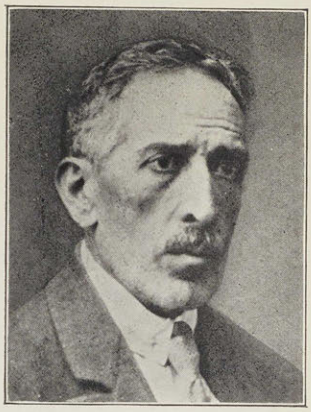
THORNDIKE, HARRY HILL; A.B. (1890-92; 1894-96)
Architect, Retired.
Married, July 29, 1903, Lucy B. Gurnee. Children, Isabelle Gurnee, Helen.
Home, 175 Marlborough Street, Boston, Massachusetts.

IN 1909, Thorndike wrote: "Studied abroad in Paris, and also studied architecture as a special student at the M.I.T. during 1894-95 and 1895-96. Then worked for two years as draftsman in the office of Messrs. Peabody & Stearns, Boston. Since then have not worked professionally and have travelled a good deal in Europe, spending two winters in Italy." He was a student at Harvard College from 1886 to 1890, in which latter year he received his A.B. degree. He served five years with Company A, First Corps Cadets, M. V. M. He is a member of the Somerset Club of Boston, Country Club of Brookline, Veteran Association, First Corps Cadets, M. V. M., and several clubs at Bar Harbor.

TIDD, WINTHROP LOWE II G
297 Tremont Street, Taunton, Massachusetts.
Treasurer, Oakland Mills.

1897—Engineer, Taunton.
1898—with Oakland Mills, Taunton.
1900—with Lockwood Greene & Company, Boston.
1903—with B. S. Smith Company, Pawtucket, Rhode Island.
1909—Assistant engineer, Board of Water Supply, City of New York, southern aqueduct department.





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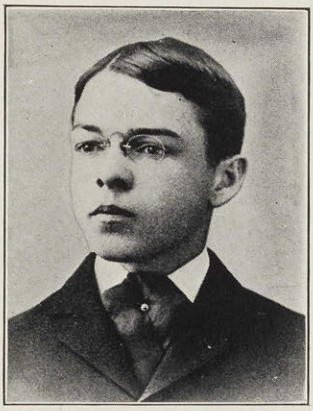
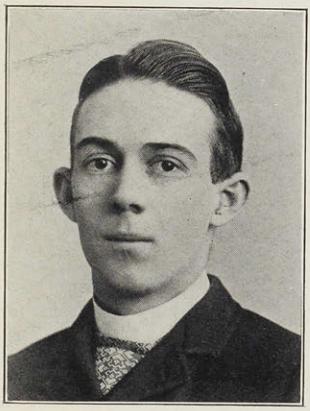
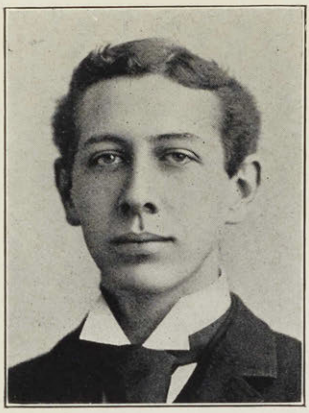


*Frederick T. Towne

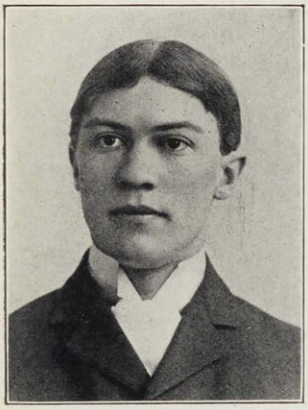


Charles A. Tripp



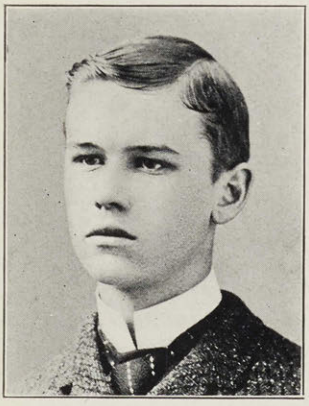
William A. Tucker

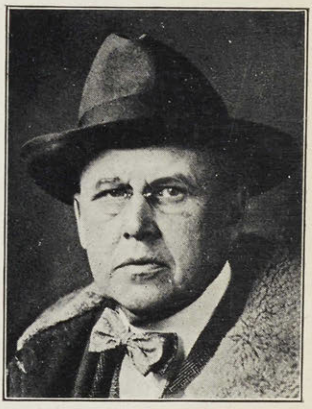
Louis B. Vining



Walter H. Vorce

Augustus B. Wadsworth





James S. Wadsworth

TOMFOHRDE, JOHN FREDERIC II G

25 Main Street, Charlestown, Massachusetts.

Attorney-at-Law.

Married, October 30, 1906, Katherine Solothurnman. Child, John Henry.

Home, 19 Fenwick Street, Somerville, Massachusetts.

TOROSSIAN, TOROSS HOVHANES I G '94

Lome, Bulgaria.

Civil Engineer in private practice.

Born, 1864, in village of Bardizag, Asia Minor.

Married, 1906, Nekdar Ferahian, Teheran, Persia. Children, Arakci, Leo, Elizabethe.

TOROSSIAN was graduated from Robert College of Constantinople in 1887, with the degree of B.A. After graduation from the Institute in 1894, he returned to Bulgaria, entering the flour business and industry, in which he was engaged until 1899. From 1899 to 1906, with his brother, he was engaged in construction work largely in Persia for the Russian government. As they together were able to speak the English, French, German, Russian, Persian, Turkish, Armenian and Bulgarian languages, and understand naturally better than European contractors the peculiar methods of business of the Orientals, they succeeded particularly well in their work. In 1906, he returned to the flour business and industry in Bulgaria, until in 1909, he became municipal engineer for Lome, Bulgaria, a small town on the Danube. During his five years' administration, water supply, sewers, electric lighting, public bath houses and parks were established and a dozen new school houses built.

Since 1914, he has been an engineer in private practice in Lome, of which he writes:

"I have mostly to prepare plans for dwellings, stores and factories. I see that I might have had a better success if instead of engineering, I had studied architecture at the Institute."

He has written articles on "The New Highways of Northern Persia," and "Armenia and Bulgaria, Figures, Dates and Facts", and has sent several most interesting letters to the Class Secretary, some of which have been published in the *Technology Review*.

He is a member of the Society of Bulgarian Engineers and Architects in Sofia.

He is greatly interested in city engineering works, city plan-

ning and surveying, especially in the replanning of badly laid out old cities (Turkish, oriental), water supply, sewerage, parks, cadastral surveys of blocks, school buildings, bath houses, slaughter houses, etc.

*TOWLE, EDWARD AVERY (1889-90)
Died October 18, 1893.

*TOWNE, FREDERICK TALLMADGE (1890-94) II
Died February 4, 1906.
Married, May 4, 1898, Constance Gibbons. Children, Meredith, Frederick Tallmadge, Jr.

THE following account appeared in the *Technology Review* of April, 1906:

FREDERICK TALLMADGE TOWNE, '93
A Young Captain of Industry.

Every Technology man will learn with deepest sorrow of the sudden death of Frederick Tallmadge Towne, '93, general superintendent of the Yale & Towne Manufacturing Company, who passed away at his home in Stamford, Connecticut, February 4, 1906.

An acute attack of Bright's disease overcame him just as he had finished addressing a meeting of workmen at the factory on the occasion of the annual award of prizes for suggestions of mutual benefit to the firm and its employees. With the cheers of his men ringing in his ears, Mr. Towne sank into a chair in a state of collapse. Taken to an open window, he rallied for a moment, recognized his wife, and uttered her name. After that, he was unconscious to the end, which came at his home early the next morning.

Although but thirty-four years old, he had risen from the machine shop to the general superintendency of an industry which necessitated the closest familiarity with a multiplicity of intricate details such as hardly any other business calls for. Possessed of an unusual genius for organization, coupled with great executive ability, he directed his men with unerring judgment, and commanded their respect and love by his absolute fairness and fine sense of justice. His wish was that the Yale & Towne manufactory be a model one, not only in the quality of its products, but also in the relation between employer and employees, and with this in mind he had established a student course in the factory, where ambitious young men might make themselves more valuable.

As president of the National Founders' Association, Mr. Towne

gained a national reputation by his skill and judgment in solving the many embarrassing questions of policy arising between that association and organized labor. In his own city, he commanded the respect and esteem of every one, and had more than once been mentioned as candidate for mayor. As a friend, he proved himself loyal and unselfish, and his unswerving integrity and steadfastness of purpose will ever remain a worthy ideal to those who came in contact with him.

John L. Batchelder, Jr., '90.

In 1916, a contribution of $10,000 was made to the endowment fund of the Institute by Fred Towne's father in memory of his son to which a classmate added $5,000, the contribution being applied to a lectureship on Industrial Management, a subject in which Fred was deeply interested and to the advancement of which he contributed notably by example and precept.

Another close friend, and classmate, writes as follows:

"Fred Towne is remembered by us as being a fellow of an exceedingly lovable and happy disposition and one with whom we all liked to be thrown in daily contact. He was a very manly, clean cut and square associate. Everything about him was open and above board. He seldom, if ever, lost his temper—though his anger was thoroughly aroused when he came in contact with a man who was the least bit underhand. He could not tolerate anything small and yet he was always ready to help one to a broader and better truth.

"The writer of these few and very inadequate lines was an intimate friend and during Fred Towne's life and since his death has always felt him to be the best and most desirable type of American young man. It is said that the ideal is never attained, but if it were —then Fred Towne was the one who attained it.

"Of the many and very striking characteristics of Fred Towne were his ideas and ideals of large affairs, his genius for organization and his accomplishment of big and worth-while things. His mind followed as well as hewed the way through broad channels and the larger the problem the greater the zest with which he attacked it. It would seem, therefore, that the linking of his name with so great a project as the New Technology is especially fitting—for we are sure that, were he living, he would have accepted the ample opportunity there has been and still is to assist in the development of so worthy a cause."

TRIPP, CHARLES ALBION VI G

830 Delaware Trust Building, Wilmington, Delaware.
Secretary and Treasurer of U. S. Flashless Powder Company.
Born, November 7, 1870, Hudson, Massachusetts.
Married, January 1, 1902, Nancy Wilson Brown (deceased 1902). Child, Thomas Kidder (deceased).
Married, December 27, 1904, Elizabeth Minton Wright.
Home, 2003 Van Buren Street, Wilmington, Delaware.

FOR three years after graduation, Tripp was with the Westinghouse Electric and Manufacturing Company of Pittsburgh, for six months in the shop; the following year and a half in the engineering office on motor design, and the last year on street railway equipment installation. Then for two years, he was manager of the Municipal Light and Power Plant of Hudson, Massachusetts. From 1898 to 1903 he was engineer for the Bemis Bro. Bag Company, of which A. F. Bemis, '93, is now president. He was in charge of building construction at the various plants of the company, developing several machines for bag cutting, printing, folding, etc. Bemis says of Tripp—"The results of his work are still evident and useful in several branches of the business."

From 1903 to 1916, he was a member of the firm of McMeans and Tripp, consulting engineers and factory architects, Indianapolis, Indiana, their specialty being canning factories.

From 1916 to 1918, factory manager for Holcomb & Hoke Manufacturing Company of Indianapolis; and since 1918, plant manager for the Ball Grain Explosives Company and secretary-treasurer of its successor, the United States Flashless Powder Company of Wilmington, Delaware. This company is engaged in the manufacture of flashless military powder for the United States Government.

During the war, as factory manager for Holcomb and Hoke Manufacturing Company, produced rifle grenades for the United States Army; and as plant manager for the Ball Grain Explosives Company, engaged in loading rifle grenades for the United States Army and development of a flashless cannon powder for the United States Navy. He is secretary of the Rifle Grenade Manufacturers' Association. He has taken out about forty patents covering bag machinery, card tabulating machines, etc., mostly in connection with consulting work for clients. He has written papers on various engineering subjects for the Indiana Engineering Society,

and written articles and given talks on soft coal combustion and smoke prevention for the Indianapolis Chamber of Commerce, on individual electric drives for textile mills, on pneumatic street cleaning. He is an associate member of the American Institute of Electrical Engineers.

Boating is his hobby.

TUCKER, WILLIAM ALFRED III G

111 Summer Street, Boston, Massachusetts.
Care Charles O. Tucker & Son.
Wholesale greeting cards and manufacturers' representative.
Born, August 12, 1872, Roxbury, Massachusetts.
Married, February 26, 1908, Georgianna Edwards. Child, Margaret Augusta.
Home, Rockland, Massachusetts.

FOR three years after graduating from the Institute, Tucker worked as private assistant to Professor Richards of M.I.T. For the next three years he was engaged in experimental ore dressing for the Calumet & Hecla Copper Company at Lake Linden, Michigan. Failing health then compelled him to take a two years' vacation, which was spent mostly on his farm at Ponkapoag. In September, 1901, he began work again as instructor in mining and ore dressing in the Michigan College of Mines, Houghton, Michigan. He held this position for one year. Since then, he has been engaged for a time in experimental work in metallurgy for a company of Providence capitalists, but devoted most of his time to farming, until his return to Boston in 1923, again in good health.

Tucker was in California during the years of the late War and served as vice-chairman of the Oakdale Branch, also treasurer of Junior Auxiliaries, Red Cross, and as registrar on both drafts.

He is a member of the Masonic fraternity.

TURNER, ALFRED COPELAND (1890-93) IV

683 Atlantic Avenue, Boston, Massachusetts.
Architect.
Home, Waban, Massachusetts.

TUTTLE, RUEL CROMPTON; B.A., M.A. (1890-92) IV

36 Pearl Street, Hartford, Connecticut.
Artist and writer.

TUTTLE's war work, along civilian lines, was as follows: managed the 2nd Red Cross Drive, Windsor, Connecticut; through production of own play "Young Leonardo," raised $1000 at Bar Harbor, Maine, for French Hospital Fund; sold water color painting, for benefit of Red Cross, in several cities; painting "The Zeebrugge Raid," made at request of the Fifth Liberty Loan solicited in Fifth Avenue display in New York.

VARNEY, FREDERICK LANE (1889-92) IX

No address.

FROM 1898 to 1903, Varney was engaged in shoe manufacturing in Lynn; since that time have had no word from him and Tech 1920 register gives no address.

VINING, LOUIS BRADFORD VI G

200 Devonshire Street, Boston, Massachusetts.
Electrical Engineer with Charles T. Main.
Born, May 15, 1870, South Weymouth, Massachusetts.
Married, June 18, 1907, Susie C. Blanchard. Child, Virginia.
Home, 14 Lowell Avenue, Newtonville, Massachusetts.

FROM graduation until 1895, Vining was employed as draftsman by the Chicago Telephone Company. For the following eighteen years he was with the Gamewell Fire Alarm Telegraph Company at Newton Upper Falls, Massachusetts, holding different positions in the drafting and engineering departments. From 1914 to 1915, construction engineer with the Star Electric Company of Newark, New Jersey. From 1915 to 1916, electrical engineer with French and Hubbard of Boston. From 1916 to the present time, electrical engineer with Charles T. Main of Boston. He enjoys all out-of-door sports.

VORCE, WALTER HERBERT (1889-93) VI

Married, June 13, 1898, Mabel Newell. Children, Catherine Newell and Elizabeth.
Home, 140 Windemere Road, Rochester, New York.

In 1909, Vorce wrote:

"ELECTRICIAN, inspector of signals, and assistant superintendent of signals for the N.Y.C. & H.R.R. at Rochester, New York, 1893-1901. Resigned from New York Central to take charge of the

construction of a water power plant for the generation of electricity. Since 1901, have been manager, St. Albans Electric Light and Power Company, and treasurer-secretary of the Vermont Power and Manufacturing Company. While with New York Central assisted in the development of the Rochester Pneumatic Signal Company, as consulting engineer; also consulting engineer for the Taylor Signal Company of Buffalo." He has been president of the board of public works at St. Albans, Vermont, and has had military service as first lieutenant, 101st separate Company, N.Y.N.G., and first lieutenant of Company B, 1st Regiment, V.N.G.

WADSWORTH, AUGUSTUS BALDWIN; M.D. VII G

New Scotland Avenue, Albany, New York.
Director, Division of Laboratories and Research, New York State Department of Health.
Born, October 25, 1872, Brooklyn, New York.
Married, April 19, 1910, Caroline Delano. Children, Eugene Delano, Augustus B., Jr., Caroline Delano.
Home, 327 State Street, Albany, New York.

AFTER graduation from the Institute he entered the College of Physicians and Surgeons, Columbia University, receiving the degree of Doctor of Medicine in 1896. In 1900, he began the practice of medicine in New York City, having served two years in St. Luke's Hospital and having studied in Berlin and Vienna. Dr. Wadsworth was connected with Columbia for thirteen years, holding fellowships in research, as assistant and later instructor in bacteriology and hygiene from 1899 to 1918, Alonzo Clark Scholar in pathology from 1905 to 1910, associate bacteriologist from 1908-1909, and assistant professor from 1909 to 1913. He was also assistant physician in the out-patient department, Roosevelt Hospital, 1905 to 1908, and a consulting bacteriologist from 1909 to 1914, again studying abroad in the summers of 1910 and 1912. Since 1914, he has been director, Division of Laboratories and Research, New York State Department of Health at Albany, New York. He was American representative at the Second International Conference on the Standardization of Serums and Serological Tests held under the auspices of the Health Section of the League of Nations, representing the Rockefeller Institute, at Paris, in November, 1922. In that year he was decorated a Knight of the First Class of the

Order of St. Olav by the King of Norway in recognition of services which he had rendered Norwegian scientists in America.

During the war Wadsworth was with the division of laboratories and research of the Department of Health of New York, which trained technicians for army laboratories and supplied the Army and Navy with serums used in diagnosis and treatment of pneumonia, epidemic meningitis and dysentery.

He is a member of the Association of American Physicians, the Association of Pathologists and Bacteriologists, the American Medical Association, the Society for Clinical Investigation, the Society of American Bacteriologists, the Association of Immunologists, the American Public Health Association, the Society of Experimental Biology, secretary (1912) of the Harvey Society, president (1913) of the New York Pathological Society; member the New York Academy of Medicine, the New York State Medical Society, the Royal Institute of Public Health; the University Club of New York City. Wadsworth has written a great many technical and scientific papers on medical subjects and delivered many lectures and addresses. His amusements are golf, tennis and fishing.

WADSWORTH, EDNA
(See Moody, Mrs. Herbert R.)

WADSWORTH, JAMES STEVENSON (1889-91) II
41 Berkeley Street, Boston, Massachusetts.
Electrical Maintenance, Franklin Union; Teaching Telephony, Franklin Union.
Born, October 11, 1871, Malden, Massachusetts.
Married, July 6, 1898, Lillian M. Harris.
Home, Reading, Massachusetts, R. F. D. 97.

"WITH General Electric Company from January, 1892, until July, 1893, in draughting room and on student course. Panic of '93 threw me out. With New England Telephone and Telegraph Company from August, 1893, until August, 1908, except for six months in Florida in winter of '94-'95, during which time I did sub-station work, general and special inspection, chief clerk in division superintendent's office at Lowell; manager of exchange at Manchester, New Hampshire; central office switchboard installation as helper and foreman and the last four years or so in engineering department, territory covering New England, except Rhode Island and Con-

necticut. During this time, April 22, 1901, I was shot by a crazy foreman in Portland. Stopped two 38's and read my own obituary in the paper, printed next morning, but needless to say I didn't read it till later. Left Telephone Company in August, 1908, to take up study of osteopathy, thinking it a surer and quicker way to make a dollar. Pursued the chase in Somerville, Portland, and Bath for a period of seven years, 1911-1918, when I gave it up in disgust. After various and sundry odd jobs I finally landed my present position (?) which I am going to hang on to like a sick kitten to a hot brick. It's a cold and cruel world after 40. Osler was right, chloroform is all they are good for after 40. You may not be willing to admit it yourself, but try looking for a job at that age and see what the other fellow thinks.

"During the war I worked for a few months at the Bath Iron Works, and used to see Fred Baker and Cecil Paine occasionally. Also from October, 1918, until February, 1919, taught a telephone class at the Franklin Union for the Student Army Training Corps.

"No public offices held or desired.

"Not long enough at Tech to profit by any specific knowledge acquired. General mental training of course of great value.

"Have had no contact with Tech men in the sense in which the question is asked.

"Am still alive and get enough to eat and a place to sleep, otherwise have accomplished nothing except to demonstrate the fact that some men have to live one life time to know what mistakes to avoid. I was a fool ever to have left the Telephone Company but didn't know it at the time."

He is a member of Solar Lodge No. 14, F. and A.M. of Bath, Maine, and also unaffiliated member of Chapter and Council. "Work, eat and sleep — no time for anything else."

WAITT, CHARLES GREEN (1888-92) XI

141 Milk Street, Boston, Massachusetts.

Supervising Auditor, Boston District, The Travelers Insurance Company.

Born, June 27, 1868, Malden, Massachusetts.

Married, May 4, 1900, Margaret V. Caulfield. Children, Eleanor V. and Esther M. (twins), Charles L.

Home, Plymouth Avenue, East Milton, Massachusetts.

"ON leaving the Institute I devoted the first summer to the design and erection of a brick business block in Malden, also drawing

plans and erecting several similar large business blocks in Roxbury and Dorchester.

"The next year I opened an office for general engineering work, and also made topographical surveys, reports and designs for water and sewerage systems for a number of small towns and cities, that of Amherst, Nova Scotia, being one of the most interesting on account of the peculiar topography of that section.

"About that time I engaged with the Massachusetts Metropolitan Sewerage Commission and remained with them for several years.

"In 1900, the writer was appointed by the American Society of Civil Engineers, of which he was a member, and also the Boston Society of Civil Engineers, to represent them at the International Convention of Civil Engineers held that summer in London and Paris. While in London we were guests of the British Institute of Civil Engineers and again in Paris we were royally entertained by the Société des Ingénieurs Civils, meeting the leading civil engineers from every civilized country in the world.

"On this trip the writer remained and spent several months in England, France, Germany and Italy and on his return in the spring was engaged by The Travelers Insurance Company for special work requiring engineering experience, and has remained with them ever since, with the exception of one other summer spent in Switzerland and France, where I went for a rest and change.

"From 1903 to 1913, the writer was elected each successive year to the Board of Sewer Commissioners for the Town of Milton where he resides, serving as secretary, and later as chairman of that board, and during that period much important work was done by the board for the Town.

"Needless to say, my Tech training has enabled me to do things that otherwise would be quite impossible, and the four years I spent at Tech I found of the utmost value.

"Although a member of fraternal and social organizations, the writer feels that the friendships gained at Tech are the strongest and that the warm feeling one has for his classmates cannot be duplicated by later day friendships.

"My hobby is my home and I join with my children in their amusements."

He is a member of the Masonic fraternity, thirty-second degree, and also of the Elks and other Societies.

WALDRON, SAMUEL PAYSON I G

120 Franklin Street, Boston, Massachusetts.
Contracting Manager, American Bridge Company.
Born, January 27, 1871, Portsmouth, New Hampshire.
Married, October 7, 1907, Hariet Billington. Child, June.
Home, 790 Great Plain Avenue, Needham, Massachusetts.

WALDRON has been engaged in bridge work practically all the time since his graduation from the Institute. Until 1897, he was with the Boston Bridge Works as draftsman, and later holding a similar position with the Pennsylvania Steel Company for a short time. From 1898 to 1900, he was assistant engineer of the Keystone Bridge Works, and in 1900-01, was assistant engineer of the Eastern Bridge & Structural Company of Worcester, Massachusetts. In May, 1901, he entered the Berlin Plant of the American Bridge Company, for a year as chief draftsman, and then as engineer in charge of the plant. In December, 1903, he became an engineer in the New York office of that Company, and from 1905 to 1912 held the position there of designing engineer. In 1912 he was transferred to the contract department, and was made manager of the Boston office January 1, 1913.

He is a member of the American Society of Civil Engineers, Boston Society of Civil Engineers; Norfolk Lodge, A.F. and A.M., Orange Chapter, R.A.M., DeMolay Commandery K. T.; Engineers Club and City Club of Boston.

WALKER, AMASA (1889-93) II IX

55 Fifth Avenue, New York City.
General Manager Educational Department, Longmans, Green and Company.
Born, November 12, 1870, North Brookfield, Massachusetts.
Married, June 28, 1898, Anne B. Babcock. Child, Philip.
Home, 79 Washington Place, New York City.

"ON leaving the Institute I took work in English at Harvard in 1893-94 to fit for newspaper work. From Harvard I went to work for 'The Springfield Union', in Pittsfield, Massachusetts, and remained there about six months, when I entered the employ of Harper & Brothers, New York, in their educational department. In about three years I was sent to Boston and there opened a New England Agency. When the Harpers failed in 1900, I went to work for D. C. Heath & Company and remained with them for

about two years. I resigned to open a New England Agency for D. Appleton & Company, and continued in their employ until I resigned to take position of general manager for Longmans, Green & Company, at New York. My work is wholly with school books, and consists in getting, editing, making and selling. We have branch offices under my charge in Boston and in Chicago. I have become much interested in scientific management and was one of the speakers at an economic society conference, held in Chicago in March, 1913. My training in Course IX prepared me to appreciate the application of science to commerce. Hitherto it has been concerned chiefly with production. In my spare moments I am engaged in demonstrating that science can be applied to distribution."

He is a member of the Society for Promotion of Engineering Education, Chi Phi fraternity, Masonic fraternity, Sons of American Revolution, Society of American Wars, Quill Club and City Club of New York.

WALKER, CHARLES RICHARD V III G

Weymouth Art Leather Company, East Weymouth, Massachusetts.

Technical Adviser and Consulting Chemist, Headquarters Weymouth Art Leather Company.

Born, October 18, 1864, Cambridge, Massachusetts.

Married, June 12, 1918, Anne S. Heywang.

Home, 52 Lakeview Avenue, South Braintree, Massachusetts.

"ENTERED the Institute from the Cambridge, Massachusetts, Schools, with the Class of '88, but was obliged to leave owing to severe illness and after several years spent in outdoor engineering work returned, graduating with the Class of '93.

"Have held the following positions: chief chemist, Eastman Kodak Company, Rochester, New York; chemist and superintendent, General Chemical Company at various locations; superintendent, National Tire Company, Elizabeth, New Jersey; chemical engineer, The Barrett Company at various locations.

"When the War started, entered as: assistant superintendent of the Warren Chemical Products Company, Warren, Pennsylvania, which later became the Aetna Explosives Company, leaving to become manager of the Nitro Powder Company of Kingston, New York, where we manufactured T.N.T., Dynamite, Nitro-glycerine, and other pleasant compounds.

"After the War formed the Conewango Chemical Company, of Warren, Pennsylvania, manufacturing nitro cellulose products. Was vice-president of this company, and resigned to enter a broader field with the Weymouth Art Leather Company, of East Weymouth, and associated companies.

"As my occupations have extended over a wide range of territory, have not had much time for politics or opportunity to get in touch with classmates.

"Have had too many interesting experiences for this account.

"I absolutely have benefited by Tech training."

Walker has written articles on chemical and allied subjects and given lectures on these subjects in various places. He is a member of the American Chemical Society, National Geographic, the former American Electro-Chemical Society, Society of Arts, and others. His amusements and hobbies are photography, geology, travel and out-door sports.

WALKER, GEORGE LOUNSBURY; B.S. I G

260 Convent Avenue, New York City.

Real Estate.

Married. Children, George Burnham, John Lounsbury, Margaret.

Home, 451 West 140th Street, New York City.

WALKER graduated from the College of the City of New York with the degree of B.S. in 1890. From 1893 to 1895, he was with Norcross Brothers, builders, in Worcester and New York; from 1895 to 1898 he was master mechanic, department of street cleaning, New York, under Colonel Waring; from 1898 to 1900 he was chief engineer of the Building and Sanitary Inspection Company of New York, and from 1900 to the present time he has been building contractor and real estate operator.

During the war he was Captain in the Construction Division, Quarter Master Corps, U.S.A., from September, 1918, to April, 1920, and he is now Major of Engineers, O.R.C.

He is a member of the Society of American Military Engineers, Army and Navy Club of America, City College Club, New York Athletic Club, Kane Lodge, No. 454, F. & A.M., the Military Order of Foreign Wars and the American Legion. His amusements are tennis, skating, swimming, sailing and motoring.

WALLACE, FREDERIC APPLETON II G

Pacific Mills, Lawrence, Massachusetts.
Married, June 25, 1907, Lettie Thorp.
Home, 335 Main Street, Andover, Massachusetts.

DIRECTLY after graduating he began work as assistant to the mechanical engineer in the Pacific Mills at Lawrence, Massachusetts, and was then promoted to chief engineer of the steam and power plants. In October, 1899, he was again promoted to the position of master mechanic of the cotton mills and in 1900, in addition to this, the position of master mechanic of the Pacific Mills print works. In 1913, Wallace was appointed a member of the Massachusetts State Board of Boiler Rules, as a representative of the boiler users. He is an associate member of the American Society of Mechanical Engineers.

WALLIS, ROBERT NORCROSS IX G

Fitchburg, Massachusetts.
Treasurer, Fitchburg and Leominster Street Railway Company; Lowell and Fitchburg Street Railway Company; assistant treasurer, Fitchburg Mutual Insurance Company; clerk of corporation and trustee, Worcester North Savings Institution; director, Fitchburg Bank and Trust Company.
Born, December 28, 1870, Fitchburg, Massachusetts.
Married, January 28, 1895, Pauline Bergmann. Children, Lawrence Bergmann, Robert Norcross, Jr., Richard Gregory.
Home, 45 Mechanic Street, Fitchburg, Massachusetts.

AFTER graduating he entered the employ of Frank P. Bennett and worked for the *U.S. Investor* and the *American Wool and Cotton Reporter* in various parts of the Union. In November, 1894, he resigned to take the position he now holds with the Fitchburg and Leominster Street Railway Company. He is also treasurer of the Lowell and Fitchburg Street Railway Company; assistant treasurer, Fitchburg Mutual Insurance Company; clerk of corporation and trustee, Worcester North Savings Institution; director, Fitchburg Bank and Trust Company. He was a member of the Fitchburg Common Council in 1899 and 1900, being president during the latter year; member of the Park Commission, 1900-1901; trustee of the Fitchburg Public Library, 1912 to date; president, Fitchburg Merchants Association; president, American Electric Railway

Accountants Association, 1909 to 1910; vice-president Fitchburg Historical Society, 1918 to date. During the war he served as secretary of the Volunteer Aid Committee, taking the work of the Home Service Committee Red Cross. He is a member of the American Economic Association, Fay (not F.H.) Club, Oak Hill Country Club, Rotary Club, American Electric Railway Accountants Association.

To his affirmation of benefit received from Tech training, he adds "Always felt Tech should have developed Course IX into a high grade course of business administration. (Success of Harvard and other such business administration schools proves soundness of that position.)"

WARDNER, HERBERT LEAVITT (1889-92) IV

134 Highland Avenue, Akron, Ohio.

Architect.

Married, March 20, 1902, Emily F. Barry. Child, George Waldo.

FOR several years after leaving the Institute Wardner was in the employ of various architects in New York City, being for five years with McKim, Mead and White. After leaving New York he was a member of the firm of Clough and Wardner of Boston for some time. In 1915, as resident representative of his firm, Leeming and Wardner, architects of New York City, Wardner opened offices in Poughkeepsie, New York, and made that city his home until 1919, when he moved to Akron, Ohio. Wardner's firm have been architects for many churches, schools and municipal buildings in New England, New York and other states.

*WARREN, FREDERIC IVES (1889-91) II

Died, March 6, 1924.

WARREN entered the lumber business, upon leaving the Institute, but the panic of 1892-93 caused him to give it up. For the next few years he was with the Pennsylvania Railroad Company, as inspector, and later with the Westinghouse Electric & Manufacturing Company as inspector. This covered a period of nine or ten years. In spite of only two years at college, he then entered the engineering field with the Industrial Works at Bay City, Michigan, and developed most of the machines which they now build, the most prominent of which is a tunnel wrecking crane for the Pennsylvania

Railroad, located at the terminal in New York City. He designed cranes, pile drivers, etc., for the Bucyrus Company, South Milwaukee, for a few years, returning to the Industrial Works as designing engineer and continued with them until illness forced him to resign. He died at his home in Bay City on March 6, after a lingering illness.

He is survived by his wife, formerly Ara Annett Hastings, and three daughters, Anna (Mrs. Joseph H. Williams), Eleanor and Ara.

He had been an active member of Trinity Episcopal Church, serving as vestryman for several years. He was also a member of Theta Delta Chi fraternity and of Bay City lodge, No. 88, B.P.O. Elks.

During the war as sales engineer of the Industrial Works at Bay City he assisted in production of cranes and other railroad machinery for Europe and the shipyards in this country.

WARREN, JOHN BROADFIELD (1889-90)

Address unknown.

IN 1920, Warren was in the printing business at 2929 Broadway, New York City. Mail is returned from this address.

In 1919, his home address was R.F.D. 68-M, Bolton, Massachusetts, and in 1914 R.F.D. 44-A, Stow, Massachusetts.

WASHBURN, CADWALLADER; B.A. (1890-91) IV

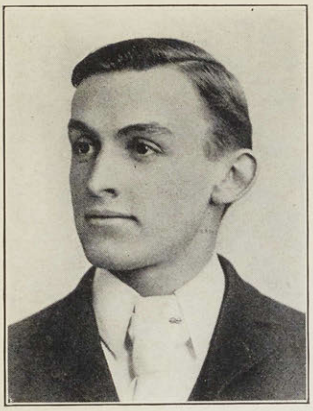
Artist and Writer.

Born at Minneapolis, Minnesota.

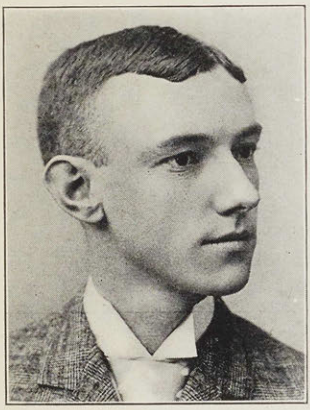
Home, Livermore Falls, Maine.

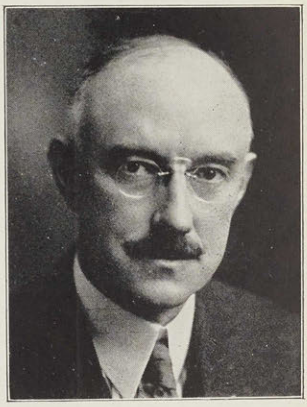
Also, address in care of Minneapolis Trust Company, Minneapolis, Minnesota.

WASHBURN graduated from Gallaudet College, Washington, D.C., with the degree of B.A. in 1890, preceding his special course in architecture at the Institute. He then spent some time at the Art Students' League in New York, and was a pupil of H. Siddons Mowbray in 1895-96. Later he became a pupil of William M. Chase in New York; then went to Spain and studied with Joaquin Sorolla at Madrid, 1896 to 1898, and with Albert Besnard in France, 1899 to 1900. After studying with Besnard, Washburn exhibited annually in a long series of brilliant Paris salons extending from 1896 until 1904, without intermission. Then came the

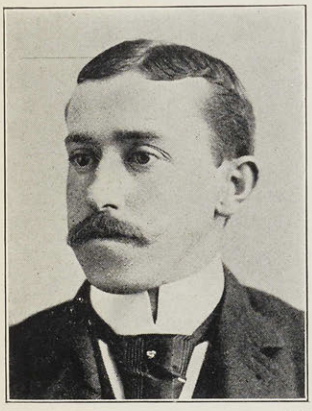


S. Payson Waldron





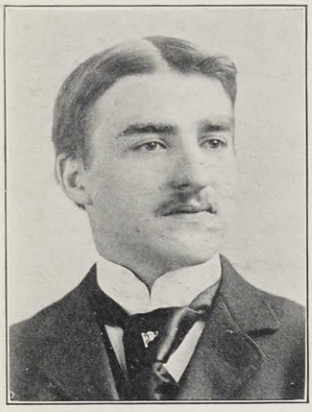
Amasa Walker

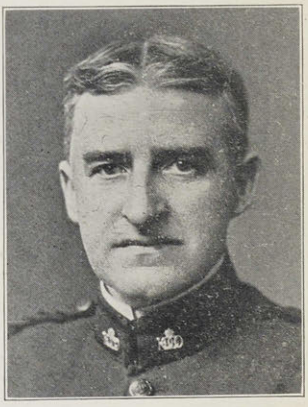


Charles R. Walker

George L. Walker

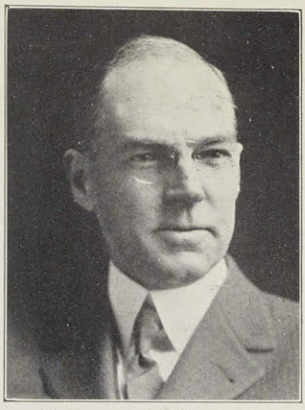
Robert N. Wallis





Rigby Wason

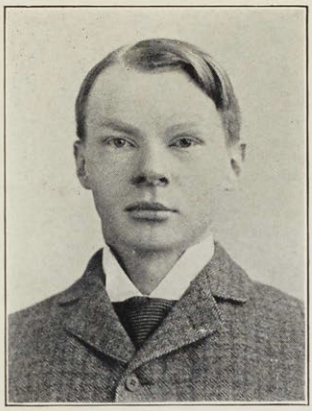
Henry C. Waterman



Laurence J. Webster

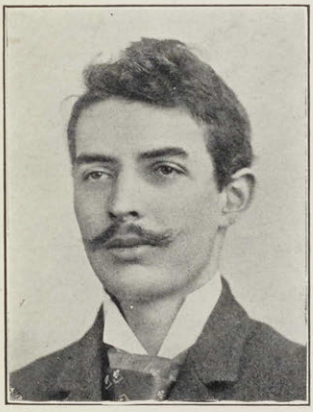
William C. Whiston

S. Edgar Whitaker

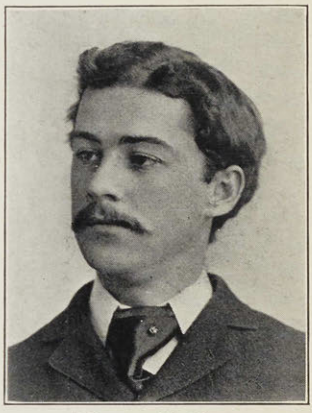


PARKER H. WILDER

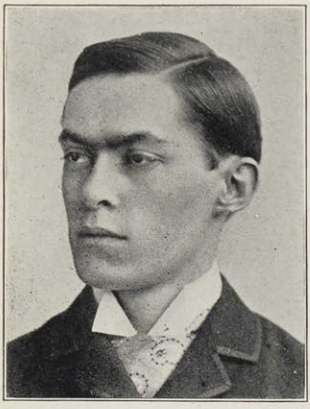
EDGAR L. WINGATE



JONATHAN E. WOODBRIDGE



*HENRY T. WOODS



GEORGE M. YORKE

Russo-Japanese War; Washburn left Paris for Japan and Manchuria, as war correspondent at Newchang for the Chicago *Daily News* during 1904-05. He has travelled everywhere, all over Europe many times, to the Orient, across the Himalayas and into the heart of Africa; he spent the winters of 1908-09-10-11 in Mexico, and was again war correspondent for the Chicago *Daily News* during the Mexico-Madero Revolution. In 1906, he gave his first public exhibit, which was received with very favorable comment by the New York press. In 1917, the Washington, D.C., *Evening Star,* referring to an exhibition of his etchings at the Dayton Gallery, referred to him as "one of the most successful of our American etchers." In 1919, upon his return from four months in Siam, he exhibited in Boston a series of etchings of which the *Transcript* gave a long review, stating that the exhibit added substantially to the artist's reputation and threw a most interesting light upon one of the least-familiar places in the Orient. He has been awarded the second prize of the Paris-American Art Association and the gold medal of the Panama-Pacific International Exposition, in 1915. Last year he hunted birds, their nests and eggs for the Museum of Comparative Oölogy, visiting Tahiti and the Marquesas Islands. A few of his interesting experiences: "Sank in *S.S. Merida,* Gulf of Mexico in 1910, losing everything, nine pieces of baggage. Saved in my pajamas and taken to Norfolk, Virginia. In 1913, escaped from Mexico, when hunted by agents of President Huerta, for publication of articles supporting Madero cause. In 1923, marooned on a remote island of the Marquesas Group, on account of wrecked yacht. Crossed sea to main island in native-manned outrigger canoe, minus baggage." Washburn's is truly a remarkable career; totally deaf since three years old, he has made for himself a name well-known among our American artists by indefatigable labor, and extensive travel; his sunny out-look on life and a close communication with his associates, through the medium of his writing pad, is giving him a life full of enjoyment in spite of his handicap. He is unmarried. He has contributed articles on "Joaquin Sorolla, the Great Spanish Painter," to the *Outlook,* "Experiments with a Chrysalis" in the *Automological News,* "Siamese Architecture" in the *American Art Magazine,* and others.

He is a trustee of the Museum of Comparative Oölogy at Santa Barbara; and a member of the National Arts Club of New York; Washington, D.C., Art Club; University Club of Mexico City; American Federation of Arts, and American Geographical Society.

WASON, RIGBY VI G '94

21 Grafton Street, Bond Street, London, W. I., England.
Sole Owner of Perry & Company, Manufacturers of Gas and Electric Light Fittings, and Ornamental Metal Work.
Born, July 26, 1871, London.
Married, March 26, 1924, Dorothy Guendolen Hill.
Home, 91 Onslow Square, London, S. W. 7 and Blair, Dailly, Ayrshire, Scotland.

AFTER graduating in 1894, Wason returned to his home in England and entered the electric light branch of the General Post Office, St. Martins le Grand, London, Sir William Preece, K.C.B., then being engineer-in-chief. He rose to be senior officer in charge of shift of the electric light branch and was transferred to the Crown Agencies for the Colonies as superintendent foreman for the Maltese Government Electricity Works. Later held posts in private companies, in 1897 with the Telautograph Company, in 1898 with Expanded Metal Company. In 1898-99, he made a trip around the world. In 1901-02, he studied for the Bar and was called June, 1902, by the Honorable Society of the Middle Temple. In 1903, he became a junior partner in Perry & Company, Manufacturers of gas and electric light fittings and ornamental metal work, which was founded in 1756 and has held Royal Warrant of appointment since 1820. He is now sole owner.

Wason served throughout the South African War with the Cycle Section of the City Imperial Volunteers and won the medal of four clasps and also the Territorial efficiency medal.

"Practically all my life I've had a uniform to wear. I started with a red coat as a school boy at Rugby. Then later I joined the Inns of Court Rifle Volunteer Corps and rose to be their Orderly Room Staff Sergeant. I possess the Territorial Medal.

"During the war I served in the Special Constabulary and possess the medal. Am now a Chief Inspector in same.

"I served in South African War. In July, 1914, I was at Bayreuth in Bavaria for the Wagner Festival. I was put in the guard room by the Germans, but ultimately allowed to proceed to Marienbad in Austria, where I was interned. They treated me well and at the end of September, 1914, they allowed me to proceed home on parole. This being so, I couldn't join up. But I became a special constable and threw myself actively into canteen work, being a

voluntary worker, in many capacities for the Y.M.C.A. and for the Australian force Canteens.

"Four years in a foreign country is an education in itself and I flatter myself I was taught and learned a thing or two in the class room, in the Chapel opposite and on the steps of *Rogers*.

"In general I have travelled a lot, having been round the world, and to many queer corners of it. For many years before the war, I always used to have a trip on the continent once or twice a year, but now I'm always anxious, after having been interned, to get again behind the White Cliffs of Dover. My last trip was to Malta and back in the spring of this year (1923), on H.M.S. *Yarmouth* as the guest of my brother, Captain C. R. Wason, C.M.G., C.I.E., R.N., then the captain."

Wason is a Justice of the Peace for the County of Ayr, Scotland; barrister-at-law, Middle Temple; chief inspector, Head Quarters, Central Detachment; Met. Special Constabulary Reserve; P.M. and treasurer, Oxford and Cambridge University Lodge of Freemasons No. 1,118; PZ Oxford and Cambridge University Chapter Royal Arch; member, Oxford and Cambridge University Chapter Sovereign Princes, Rose Croix of H.R.D.M., founder, Old Rugbeian Lodge of Freemasons No. 3551; member, Public School Rose Croix Chapter; possess London Rank; Hon. Freeman, City of London; Hon. Member, Inns of Court R.V.C.; member, Reform Club and Albermarle Club of London, Reform Club of Liverpool. He has published "Some Volunteer Verse" and "In Peace and War," collections of verse from Inns of Court Rifle Volunteer Corps and City Imperial Volunteers (South African War). His chief amusements are Music — he is a fellow of the Royal Philharmonic Society and a member of the Music Club — and the amusement of children, being "Uncle Rigby" to dozens!

Bemis writes of Wason:

"Along with other classmates working in foreign fields, Rigby Wason always has his latch-string out at Number 21 Grafton Street, London, for all members of the class. He had hard luck during the great war in having been in Austria when it broke out. Through the magnanimity of Austrian officials he was allowed to go 'on parole' so that he was eliminated from direct participation in the war. However, he served as a member of the London air raid police patrol and as a worker in the Y.M.C.A. home war service, etc. Very early in the war one of his nephews was killed near Arras in an advance on the German trenches — Eugene Crombie, a captain

at barely twenty-one and one of the finest "flowers" of British youth. Rigby and I sought out his grave at Agnez-les-Duisans near Arras in May, 1919. Any '93 man who visits London should give Rigby a call."

WATERMAN, HENRY CUSHING IV G

44 Bromfield Street, Boston, Massachusetts.
Architect, with A. H. Bowditch.
Married, June 15, 1907, Grace E. Brown.
Home, South Hanover, Massachusetts.

WATERMAN was with J. Williams Beal, architect, for eighteen years, and has been with another Boston architect, A. H. Bowditch, for the last nine years.

During the Spanish war he was in service as a member of the First Corps of Cadets.

WATSON, ARTHUR PARKER (1885-86, 1889-90)

WEBSTER, LAURENCE JACKSON (1889-90)

321 Hammond Street, Chestnut Hill, Massachusetts (winter)
"Farmer"; Trustee; Director in one or two corporations.
Born, June 18, 1871, Canton, Massachusetts.
Married, October 10, 1901, Alice May Rogers. Child, Frank G., 2nd.
Home, Holderness, New Hampshire.

"WITH Stone & Webster, 1890 to 1900, when I retired on account of lack of health."

He is a member of the Union Club, the Exchange Club, of Boston, and the Brookline Country Club.

WEEKS, HARRY ELLIS (1891-92) IV

1900 Euclid Avenue, Cleveland, Ohio.
Architect.
Married, February 25, 1897, Alice B. Luggey.

FOR several years Weeks was head draftsman for H. Neill Wilson of Pittsfield, Massachusetts, then went into practice and is now of the firm of Walker and Weeks, architects, of Cleveland. During the War he was architect for the U.S. Housing Corporation on industrial houses at Alliance, Ohio.

WEIDINGER, ALBERT ERNEST (1891-93) IV
Address unknown.

FOR several years, he was a member of the firm of Holt and Weidinger, architects, New York City (mail has been returned).

WESTCOTT, HARRY MACKMANN (1890-91) IV
Hot Springs, Arkansas.

WHISTON, WILLIAM CORTELYOU (1889-93) VI
49 Lafayette Street, New York City.
Electrical Engineer, Transit Commission, State of New York.
Born, January 7, 1872, Dwight Street, Boston, Massachusetts.
Married, June 15, 1907, Emma L. Bancroft. Child, Edward Andem (deceased).
Home, 97 Clark Street, Brooklyn, New York.

"FOR a short time I worked in a small shop making parts of an all-metal camera which was the forerunner of the present folding pocket camera. In 1895, I went to Pittsburgh and worked with W. F. Lamb for the American Telephone and Telegraph Company for about two years, most of which time was spent in Buffalo. Was in the Telephone Engineering Department of the Western Electric Company for a short time and then went with the Knickerbocker Telephone and Telegraph Company, an opposition company in New York City, which petered out. Two years with the Boston Elevated Railway, laying out and building underground ducts, connecting up third rail for the opening of the elevated system, testing cables, etc. For the next four or five years I was in the newspaper game working for my half brother, who was a well-known newspaper publisher in New York City. In the panic of 1907 things went bad and I landed a job with the Public Service Commission where I have been ever since, though it is now called the Transit Commission. For the first twelve years with the Commission I was associated with Clifton W. Wilder, '98, but for the last two years have stuck my feet under the same desk with Harry Latey.

"During the World War I was on a district committee that examined questionnaires and the men who filled them out in connection with the selective draft.

"My literary efforts have been devoted to articles in the *Transit Record,* published by the Commission, the last article being on

the equipment of the subways. A couple of years ago I read a paper on the same subject before the Brooklyn Engineers' Club."

He is a member of the American Institute of Electrical Engineers, New York Electrical Society, American Electric Railway Association, New York Railroad Club; Delta Upsilon Club of New York.

For amusements he prefers "tinkering on the old bus and fooling with radio."

WHITAKER, SAMUEL EDGAR; A.B., A.M. VI G

82 Beaver Street, corner Wall Street, New York City.

Consulting Engineer and Public Accountant with Arthur Young and Company.

Born, June 3, 1870, Medford, Massachusetts.

Married, June 30, 1902, Edith H. Wilder. Children, Howard Edwards, Laurence Wilder.

Home, 111 Merriam Avenue, Bronxville, New York.

HE was a student at Boston University from 1886 to 1890, receiving the degrees of A.B., in 1890, and A.M. in 1893. From June to September, 1893, he was bookkeeper in the Citizens' National Bank at Tilton, New Hampshire. From October, 1893, to April, 1894, he was bookkeeper for the assignees of the Grosvenor & Richards Company, chemists, at Saugus, Massachusetts. From April, 1894, to July, 1896, he was with the General Electric Company at Lynn and Schenectady in the meter department, expert department and the engineering department. He was in charge of Professor Elihu Thompson's exhibit at New York in May, 1896. In July, 1896, he established a business as electrical contractor in Fitchburg, Massachusetts, and continued until December, 1898, at which time he sold out the business. In September, 1898, he began street railway construction and built the overhead work for the Norfolk Southern Street Railway Company, and was employed by the Norton and Taunton Street Railway Company, and in the summer of 1899 he built the overhead work of the Gardner, Westminster and Fitchburg Street Railway. From January to May, 1899, and from November, 1899, to March, 1900, he was connected with the engineering staff of the General Electric Company at Lynn in the alternating department. April, 1900, to April, 1901, he was general manager and superintendent of the Portland and Yarmouth Electric Railway Company of Portland, Maine. June, 1901, to Feb-

ruary, 1904, railway engineer for Burnett, Cummings & Company, bankers, Boston. March, 1904, to November, 1906, in partnership with George T. Edwards, real estate, Portland, Maine. Office manager and assistant to the secretary of the American Society of Mechanical Engineers, from 1907 to 1912, resulting in acquaintanceship with Frederick Winslow Taylor, Carl G. Barth, Morris Llewellyn Cooke, and Colonel H. K. Hathaway, and Colonel Sanford E. Thompson, leaders in the development of the scientific management movement.

"I was associated with Frank B. Gilbreth, for several years, in the application of scientific management principles to various industries in the United States and Germany.

"I happened to be in Berlin at the time that the World War was declared. I was there fifteen months until July, 1915, as resident manager for Mr. Gilbreth, who was retained in a consulting capacity on cost and management problems by the Anergesellschaft, the electric tungsten lamp and incandescent gas mantle trust. It was a period of unusual experience.

"On my return to this country, I got into war work, through investigations of munitions contracts in behalf of the Russian Artillery Commission, in 1917.

"Then for a year, 1918, commissioned as a Major. I had the opportunity of assisting in the expansion of the Ordnance Department of the United States Army."

He is a member of the American Institute of Electrical Engineers, the Taylor society (senior grade); Theta Delta Chi fraternity and Pioneer Lodge, A.F. & A.M. His hobby is gardening. His son Howard is in the Class of '24, M.I.T., chemical engineering.

*WHITE, JOHN STAFFORD (1890-92) IV

Deceased.

WHITE was an architect in St. Louis until his death. He was a member of the Board of Directors, St. Louis Chapter, American Institute of Architects, and a member of Sigma Chi fraternity.

*WHITING, WALTER SHERMAN (1890-92) I

Died, November 2, 1907.

Married, March 27, 1894, Maude Agnes Clinton. Children, Walter Sherman, Jr., Alfred Clinton, Marjorie Earle, and one other daughter.

THE following account of Whiting appeared in the *Technology Review* of January, 1908:

Walter Sherman Whiting, who attended the Institute for over a year as a member of the class of '93, met with a distressing accident October 30, and died November 2, 1907. Whiting was born in Camden, New Jersey, October 11, 1866. His parents were Stephen Betts Whiting and Kate Burr Whiting. When still a young boy, his family moved to Pottsville, Pennsylvania, and, shortly after he became of age, to Cambridge, Massachusetts. In the autumn of 1890 he entered the sophomore class at M.I.T. as a special student in the civil engineering department. He spent about three terms at the Institute, and left some time in the autumn or winter of 1891-1892. While at Technology, Whiting's many talents made him much sought after by the different musical, athletic, and social organizations. He was a member of the Glee Club, Theta Xi fraternity, and K.O.S. sophomore society, and he played right half-back on '93's sophomore eleven. He was always a genial and interesting companion, particularly to those who, like himself, were lovers of music.

After leaving Technology, Whiting went to Calumet, Michigan, as a member of the engineering corps of the Calumet & Hecla Mining Company, and remained at this work until the winter or spring of 1894. In March of that year he married Miss Maude A. Clinton, daughter of the late Charles Clinton, of Hoboken, New Jersey. He then went to Shamokin, Pennsylvania, and joined the mining engineering corps of the Philadelphia and Reading Coal and Iron Company. Later he was transferred by that company to the Pottsville district. After a time he left that company and joined a friend in forming and conducting the Pottsville Supply Company.

While still at Pottsville, in September, 1900, he received and accepted an offer to go to Milwaukee, Wisconsin, as treasurer of a company that was being organized there. Although this company did not materialize, shortly after reaching Milwaukee Whiting became interested with a Mr. Brown in organizing, financing, and operating the Brown-Corliss Engine Company, with shops at Corliss, Wisconsin. He was first treasurer and, later, president of this company. Some time in 1905, he lost his office in the company through a change in its ownership. From that time until his death he owned and operated a storage warehouse in Milwaukee.

On Wednesday evening, October 30, 1907, Whiting remained late at his warehouse, with a number of his men, on account of an unusual volume of business. He was driving home from there alone, when in some way he was caught between two tracks and was run down by a freight train. Apparently, the accident was not known to the crew of the train, as he lay there, exposed to the drizzling rain, probably for about three hours, he being discovered in an unconscious condition by railroad employees about midnight. He was immediately taken to a hospital. Both legs were badly crushed and were immediately amputated, one just above and the other below the knee. Although he recovered consciousness, he could not survive the shock of the accident and the operation, and he passed away Saturday morning, November 2. Funeral services were held at his parents' residence in Cambridge. He leaves a widow, two sons and two daughters.

A. F. B.

WILDER, PARKER HASTINGS VI G

4419 Erie Avenue, Cincinnati, Ohio.

Real Estate Agent; treasurer, Choate School.

*WILLEY, NETTIE MORTON (1890-92, 1893-97) VII

MISS WILLEY had been a teacher of chemistry in the Peabody High School for many years. She died on March 28, 1924, after months of serious illness.

The following tribute was written by a friend of long standing, another M.I.T. woman:

"ONE TECHNOLOGY WOMAN"

"Nettie Morton Willey would have been the last to think of herself as being an honor to the great Massachusetts Institute of Technology which she so loved, but that is what her life of quiet, efficient, faithful service made her.

"Not a graduate of the Institute, and not distinguished for particularly brilliant scholarship during the years she spent within its walls, she brought a sincerity, an integrity, a friendliness and a spirit of good cheer to her work and to the fellowship it involved which made her significant even then.

"With her entrance upon her duties as teacher of sciences in the Peabody High School, her opportunities for service grew, and,

during the twenty-five years through which that service continued, every opportunity was met to the best of her ability; so well met, indeed, that the Secretary of the Peabody School Board, in a recent article in a Peabody paper, wrote:

> ' . . . . Nettie M. Willey . . . . wielded an influence for good without parallel in the community. What she taught in class, however, was the least of her achievements. Of the thousands of young folk who came under her influence, I doubt if there was one who failed to find more beauty in the world, more joy to be derived from knowledge, than he had ever expected.
>
> 'Moreover, I doubt if many of these left school without a feeling that they had at least one friend who believed in them and to whom they could go to tell their troubles. Former pupils returning to Peabody after being in college or out in the world have a habit of dropping around almost the first thing for a chat with Miss Willey.'

"The writer knew, for he had been one of her pupils.

"Friendliness! How much the world needs it, and how much she gave! If she went to Wood's Hole or to the Harvard Summer School for a course,—and she went many times, fitting herself better and better for her work,—she brought back a friend, whom afterwards she never lost. What trouble she took to keep those friendships green, with visits, and little gifts that cost much thought, but chiefly with letters which must often have been written in time needed for sleep.

"If Nettie Morton Willey was faithful as teacher and friend, she was equally faithful as a daughter. Her father, a veteran of the Civil War, leaned more and more upon her as his own work fell from his weakening hands, and to him and the second mother, dear as a sister to her, Nettie Willey went each week when her school work was over.

"For twenty-five years, on every Friday or Saturday of the school year, she carried her suitcase from Peabody to Dorchester, and on Sunday afternoon carried it back to Peabody.

"With all this she had time and energy to help found the M.I.T. Women's Association, and to serve with distinguished ability as its secretary, as a member of the executive committee, and in other capacities as she was called upon.

"She found time, too, incredible as it may seem, to cultivate the friendships formed back there in Walker and Rogers. About

the only chance she had for making calls was on the way back and forth between Dorchester and Peabody. Some of us will never forget how she used to come, time and time again, lugging the inevitable suitcase, not counting it too heavy a price to pay for an hour's chat with an old friend. Truly, she had

'A fellowship with hearts
To keep and cultivate.' "

MATILDA A. FRASER, '99.

WILLIAMS, FRANK PERCIVAL; M.D. (1889-91)

483 Beacon Street, Boston; 277 State House, Boston, Massachusetts.

Physician.

Born, September 2, 1870, Weymouth, Massachusetts.

Married, October 17, 1900, Marion Floyd Goodale (deceased).

Home, Brimmer Chambers, Boston.

WILLIAMS left the Institute to enter the Harvard Medical School from which he was graduated in June, 1895, after having done three years' school work, and had one year as interne in St. Elizabeth's Hospital (medical, surgical and gynecological). He then went to New York Post Graduate Hospital, New York, as interne for eighteen months; took courses in special subjects for three months and travelled in the Carolinas and Florida. He began practice in Boston in May, 1897, and was appointed visiting surgeon to out patients at St. Elizabeth's Hospital and assistant surgeon to Woman's Charity Club Hospital. In 1899 he went to Kansas City, Missouri, for a year, returning in 1900, and shortly after received appointment as surgeon to the Boston Dispensary. In January, 1903, he was appointed assistant medical examiner of New York Life Insurance Company for Boston District. In 1913, he was appointed Surgeon-General of the Medical Corps of the Massachusetts Militia, with the rank of Brigadier General. His military experience began in 1906, when he was appointed Hospital Steward of the Second Brigade. He was transferred to the non-commissioned staff of the Eighth Infantry as Hospital Sergeant, first class, in 1907, and the same year was commissioned First Lieutenant, Assistant Surgeon, Medical Department, and in 1908 was commissioned a Captain in the Department. Up to this time he had always served with the Eighth Infantry and was one of the best known and best liked officers in the Militia. In 1916, as head of the medical

department (Lieutenant Colonel) of the Massachusetts Militia, he was among the first to be called upon for service in our Mexican difficulty. In the world war, he was with the 26th Division, A.E.F., going overseas September 7, 1917, and returning with the 35th Division May 2, 1919.

Dr. Williams is serving as assistant professor of surgery at Tufts, instructor in practology at the Harvard Graduate Medical School and surgeon for the State Police Patrol. He is a member of the American Medical Association, Massachusetts Medical Society, Boston Medical Library, Boston Athletic Association, Harvard Club, Corinthian Yacht Club, Mt. Lebanon Lodge, A.F. and A.M., up to 32nd degree. His recreations are golf, yachting and riding.

WILSON, HARRY COLBY (1889-93) II

Nahant, Massachusetts.

Contractor (painting and decorating).

Married, October 12, 1898, Edith O. Johnson. Child, Royal C.

In 1909 Wilson wrote:

"Two years with E. W. Bowditch, landscape engineer. Four years, assistant engineer with Metropolitan Water Board. Ten years at present occupation. For four years chairman of school board of Nahant (1900-1905), and four years secretary of selectmen of Nahant (1905-1909). Am a member of Mt. Carmel Lodge, A.F. and A.M."

WINGATE, EDWARD LAWRENCE (1889-93) II

21 Westland Avenue, Boston, Massachusetts.

General Manager, Boston Storage Warehouse Company.

Born, February 15, 1872, Newport, Rhode Island.

Married, January 2, 1902, Abbie Copeland Corbett. Children, George Edwin, Edward Lawrence, Jr.

Home, 85 Dexter Street, Malden, Massachusetts.

WITH city engineer of Malden from 1893-1896, doing general surveying and sewerage work. From 1896 to 1915 with the G.W. & F. Smith Iron Company, structural and architectural iron, as foreman of machine shop and superintendent of works. From 1915 to the present time, general manager of the Boston Storage Warehouse Company. He is a member of the Masonic Fraternity, First Corps of Cadets Veteran Association, Sons of American Revolution, Military Order of the Loyal Legion, Boston City Club, University Club

of Malden, Traffic Club of Boston, Massachusetts Warehousemen's Association. Boating and gardening are his amusements. His son George Edwin is a student at Tech.

WINTRINGER, HARRY DOHRMAN (1889-91)
Steubenville, Ohio.
President, The Steubenville Pottery Company.
Born, April 22, 1871.
Married, November 7, 1898, Maude C. Mooney (deceased). Children, Robert L., David D.
Married, April, 1908, Blanche Wood.
Home, Steubenville, Ohio.

"ENTERED the pottery business when I left Tech and have been in it ever since, and president since 1910. Am afraid that I have been too much engrossed in this work and other matters of local interest, to take advantage of the few opportunities to renew my Tech acquaintances. Here's wishing you all the best of Luck." During the War, member of Advisory Board, representing Pottery industry of country. Golf is his hobby.

WOLTERSDORF, ARTHUR FRED (1890-1892) IV
138 North La Salle Street, Chicago, Illinois.
Practicing Architecture with William Bernhard, firm name Woltersdorf and Bernhard.
Born, January 19, 1870, Chicago, Illinois.
Home, 822 Buena Avenue, Chicago, Illinois.

WOLTERSDORF travelled and studied in Europe in 1892-93. He has practiced architecture in Chicago since 1894. He is still unmarried. He is a fellow of the American Institute of Architects, a member of the Illinois Chapter of the American Institute of Architects, the Illinois Society of Architects; University Club of Chicago, The Cliff Dwellers of Chicago.

WOODBRIDGE, JONATHAN EDWARDS VI G
58 Sutter Street, San Francisco, California.
Resident Engineer, Ford, Bacon and Davis, Engineers.
Born, January 30, 1872, Duluth, Minnesota.
Married, July 25, 1899, Miss Hotchkiss; June 25, 1906, Kate Mildred Blake. Children, Mildred Ethel, Jonathan Edwards, Jr.
Home, 114 Poplar Avenue, San Mateo, California.

AFTER graduation Woodbridge was engaged in telephone work for about two years and in experimental and development work with relation to automatic machine telegraphy for the same length of time; in journalistic work in New York for three years as editor of the "Electrical World", 1897 to 1899; editor of the "American Electrician," 1899 to 1900. He was then a member of the Railway Engineering Department of the General Electric Company at Schenectady for nine years, until in 1909 he became resident engineer of Ford, Bacon and Davis, Inc., of San Francisco, which position he still holds. He has made numerous contributions to the Technical Press and to the Proceedings of the A.I.E.E., the N.E.L.A., the P.C.E.A. and similar publications. He is a member of the American Institute of Electrical Engineers and the San Francisco Engineers Club.

*WOODS, EDWIN STOUGHTON (1889-90)
Died November 15, 1913.

FROM the time he left the Institute until February, 1898, Woods followed engineering work, principally on tunnels and canals. He then entered the employ of the Kindl Car Truck Company of Chicago, and served as sales agent, secretary and as vice-president and manager. At the time of his death he was a member of the firm of Edwin S. Woods and Company of Chicago.

*WOODS, HENRY TYLER; A.B. II G
Died February 12, 1906.

THE following account appeared in the *Technology Review* of April, 1906:

Henry Tyler Woods died very suddenly February 12, 1906, of meningitis. This news came as a shock to his many friends, since he had been in good health up to a week before his death.

Mr. Woods was born in Somerville, Massachusetts, November 24, 1870. He prepared for the Massachusetts Institute of Technology at the Somerville High School, and entered the Institute in the fall of 1889. While at the Institute, he took the mechanical engineering course, and received his degree in 1893. The following year he spent at Harvard University, where he was graduated, and received the degree of Bachelor of Arts in June, 1894. After graduation he entered the wholesale coal business with the firm of Sturtevant, Norton & Company, where he remained for about two years,

after which he went into business for himself as a wholesale coal dealer, in which business he was engaged up to the time of his last illness.

He was always an enthusiastic automobilist, and also took great interest in mountain trips, both in winter and summer. He was a member of the Appalachian Mountain Club, the Pembroke Country Club, and the New England Railroad Club.

Having attended both the Institute of Technology and Harvard University, he had a wide acquaintance around Boston, and leaves many friends who sincerely mourn his loss.

E. D. D.

WOOLSTON, GEORGE FRANCIS (1889-90)

*YCAZA, OSVALDO AUGUSTO (1889-90) II
Died December 11, 1916.

OSVALDO AUGUSTO YCAZA was engaged in the banking business before his death, being sub-manager of the Panama Banking Company at Colon.

He had held the positions of cashier of the "Banco Colombiano," Guatemala; Consul of the Republic of Panama in Guatemala; Special Delegate sent by the Panama Government to the inauguration of the Northern Railroad of Guatemala; Delegate for the Panama Government to ascertain with American delegates the correctness of presidential elections in 1907; Official Surveyor for the Province of Cocle, Panama, and also for the Province of Panama. He was a founder and during 1913 President of the "Sociedad Nacional de Ingenieres, Arquitictos y Agrimensores," Republic of Panama.

He married, in 1900, Elisa Vasques y Tinoco, and they had four children, three daughters and one son.

YORKE, GEORGE MARSHALL VI G
195 Broadway, New York City.
Vice-President, Western Union Telegraph Company, in charge of engineering.
Born, April 27, 1870, Lowell, Massachusetts.
Unmarried.
Home, 15 East 11th Street, New York City.

YORKE has been in the telephone and telegraph business since graduation from the Institute. With the American Telephone and Tele-

graph Company as inspector and district inspector, assistant engineer and assistant to the general superintendent of plant; with the Western Union Telegraph Company as engineer, general superintendent of plant and, his present position, vice-president. He has been located at Boston, New York, Philadelphia, Chicago, and again at Boston and New York. For the last thirteen years he has been in charge of engineering and development work of the Western Union Telegraph Company, during which period the lines and offices have been almost completely redesigned and rebuilt, the multiplex introduced into this country and placed in very extensive use, the operation of the transatlantic cables greatly simplified and speeded up, and numerous advances in detail made in all branches of the work, all helping to bring about a greatly improved telegraph and cable service. During the war, Yorke was Major, Signal Corps, on the staff of the Chief Signal Officer of the Army, having to do with methods of securing and instructing personnel for the signal corps operations in France, and with communication between America and Europe during the war period.

He was a member of the Operating Board, United States Telegraph and Telephone Administration in 1918, during period of Government operation of telephone and telegraph systems. To his Tech training, he gives the credit of his being in a position to make a favorable start with an industry still young, and of his ability to assist in and keep (reasonably) abreast with the subsequent technical and other developments. Because of his own experience he would have Technology hold fast to the principle that a sound training in theory is of much greater importance than practice with tools.

He is a member of the Technology Club of New York and the City Club of New York; member of the Franklin Institute of Philadelphia and associate member of the American Institute of Electrical Engineers; member of the Manasquam River Golf and Country Club; Point Pleasant, New Jersey, Golf Club; Brae Burn Country Club. His hobbies and recreations are tennis, automobiling and radio.

Mrs. Londa S. Fletcher
(Londa Loleta Stebbins)

Miss Elizabeth S. Mason

Mrs. Herbert R. Moody
(Edna Wadsworth Moody)

Mrs. William Z. Ripley
(Ida Sabin Davis)

WOMEN MEMBERS, CLASS OF '93

ABELL, ADELAIDE MAY (1892-93; 1908-09) B.S. '09 VII

BALLARD, HETTY ORILLA XII G
(Died December 20, 1897)

BLISS, PROF. CLARA A. (1890-91; 1904-05) V VII

CARTER, MARION HAMILTON (1890-93) VII
(Mail returned from last address)

FLETCHER, MRS. LONDA S. (1889-90) V
(Stebbins, Londa Loleta)

GILL, MRS. A. C. (1890-91)
(Eaton, Ella E.)

GRANGER, CARRIE AMELIA (1890-91) VII
(No address)

LAIGHTON, DR. FLORENCE MARION (1890-93) VII

MASON, PROF. ELIZABETH S. (1888-89; 1890-93) V

MOODY, MRS. HERBERT R. (1890-92) V
(Wadsworth, Edna)

RIPLEY, MRS. WILLIAM Z. (1889-90) VII
(Davis, Ida Sabin)

WILLEY, NETTIE MORTON (1890-92; 1893-97) VII
(Died March 28, 1924)

DEATHS

MACLAURIN, DR. RICHARD C. (Honorary Member)	January 15, 1920
ADAMS, FRANK WILLIAM	March 12, 1900
ALBEE, LT. COL. ORTON W.	August 4, 1919
ANTHONY, JOHN GOULD	January 19, 1901
ATKINS, GEORGE HERBERT	April, 1898
BALLARD, MISS HETTY O.	December 20, 1897
BARKER, PERCY LEWIS	December, 1900
BEST, CHARLES F.	May 24, 1918
BISSELL, JOSEPH E.	
BOWKER, LYMAN A.	September, 1916
BROWN, JOHN CLIFFORD	January 16, 1901
BURKE, JOHN R.	April 27, 1920
CALLAHAN, DENNIS E.	November 28, 1900
CAMPBELL, JAMES FAIRMAN	November 26, 1913
CARTER, PHILIP G.	April, 1917
CLARKE, COL. THOMAS C.	May 25, 1921
CONNABLE, ERNEST MATTHEW	March, 1900
COX, FREDERIC E.	
CRAIGHILL, NATHANIEL R.	
CROSBY, WILLIAM W.	March 19, 1922
DERBY, CHARLES FRANCIS	October 29, 1892
DILLON, BENJAMIN HENRY	February 21, 1909
DUNCAN, ROBERT J.	October 19, 1896
ELLIS, JOHN	May, 1920
FALES, HAROLD E.	June 11, 1920
FRISBIE, WALTER LEVI	1916
GAYLORD, WALLACE K.	March 19, 1912
GILMORE, HARRY SMITH	August 11, 1891
HAGAR, EDWARD M.	January 18, 1918
HAHN, WILLIAM IRWIN	July 22, 1904
HALL, ALBERT PERCIVAL	September 2, 1919
HANCHETT, GEORGE T.	May 6, 1919
HASKELL, S. STEVENS	
HAYDEN, LEVI C.	December 22, 1919
HODGKINS, WILLIAM W.	April 19, 1896
HOUGHTON, HERBERT ALLEN	

HOWLAND, FREDERICK H.	June 5, 1916
JAMES, LAWRENCE S.	September 27, 1920
JONES, STEPHEN EDWARD, JR.	
LANE, GEORGE H. THOMAS	August 29, 1904
LEWIS, HERBERT	April, 1914
LOTZ, ARTHUR CHARLES	February 23, 1912
MCQUESTEN, GEORGE E.	November 7, 1916
MASSEY, FREDERICK V.	November 15, 1889
MEAD, PERCY WINTHROP	September 27, 1892
MITCHELL, GEORGE MCKENZIE	September 9, 1892
MOORE, ARTHUR LEWIS	May 15, 1905
MOULTON, RAYMOND EDWARD	1907
PARSONS, PERCY GROSVENOR	
PAYNE, ALBERT BRONSON, JR.	1895
PEASE, EDWARD G.	October 23, 1918
PECK, HENRY LYMAN	1890
PERKINS, GEORGE B.	February, 1924
PHINNEY, FRANK F.	March 6, 1920
PIKE, GORDON B.	1919
PIPER, WILLIAM BENJAMIN	April 6, 1896
SHURTLEFF, ARTHUR WEBSTER	November 23, 1895
SOUTHER, JOHN KERFOOT	December 5, 1909
STANWOOD, HERBERT WINTHROP	March 9, 1899
STARKWEATHER, GEORGE M.	
SWEET, KILBURN SMITH	July 15, 1904
TOWLE, EDWARD AVERY	October 18, 1893
TOWNE, FREDERICK TALLMADGE	February 4, 1906
WARREN, FREDERIC I.	March 6, 1924
WHITE, JOHN S.	1919
WHITING, WALTER SHERMAN	November 2, 1907
WILLEY, MISS NETTIE M.	March 28, 1924
WOODS, EDWIN STOUGHTON	November 15, 1913
WOODS, HENRY TYLER	February 13, 1906
YCAZA, OSVALDO A.	December 11, 1916

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ROANOKE: W. R. Staples.

WISCONSIN

MILWAUKEE: W. R. Copeland; WAUSAU: W. E. Brooks.

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BULGARIA

LOME: T. H. Torossian.

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CUBA

HAVANA: W. T. Peck.

ENGLAND

LONDON: F. S. Badger, R. Wason.

GERMANY

REMSCHEID: R. Mannesmann.

JAPAN

MOJI: G. E. Kato; NANTEI, CHOSEN: H. Maki.

MEXICO

MEXICO CITY: C. V. Allen.

PORTO RICO

SAN JUAN: E. T. Iglesias.

UNDERGRADUATE CLASS HISTORY

by

ROY HAMILTON BEATTIE

A study of "Tech" and "Technique" for the four years taken by most of the class to get their degree shows that '93 was much more interested in making history than in recording it. Compared with the achievements of the class, the recorded history seems disproportionately small. There was one record, however, that the class set up, which was recorded by the authorities. We had the largest registration of any class up to our time — a total of 318. There were 28 co-eds at "Tech," but how many of these were in our own class seems to be a matter for disagreement even among the co-eds themselves.

CLASS MEETINGS

The account of the first class meeting states "with some slight assistance from '92 and others, the Freshman Class has temporarily chosen the following officers:

President,	J. Godchaux
Vice-President,	C. W. Smith
Secretary-Treasurer,	F. W. Fabyan
Football Captain,	Roy H. Beattie"

Another class meeting is recorded as having occurred on October 3, 1890, with the following officers:

President,	E. E. Blake
Vice-President,	J. C. Noblit
Secretary-Treasurer,	J. R. Speer

At the class meeting of February 12, 1892, C. M. Spofford was elected Vice-President.

Our first class dinner was held at Parker's on Friday, December 27, 1889; there were about sixty present. While this seems a rather small proportion of the class, it is really a good showing when compared with the record of other classes at this time.

A class meeting was held on December 3, 1890, to arrange for a second class dinner to be held on December 19. It was voted by the class that wine should be optional. This calls to mind a state of affairs on which there would be little debate in the present year of grace. President Blake presided at this dinner and Fred Towne was Toastmaster. There were eighty present.

J. C. Brown responded to the toast, "The Class"

W. H. Vorce	"The Institute"
J. C. Noblit	"Athletics"
R. H. Beattie	"The Instructors"
A. F. Bemis	"The Tech"
J. R. Speer	"The Ladies"
C. Taintor	"Futurity"

Our Junior Dinner was held at Parker's on December 15, 1891. There is no record of the attendance nor of who presided. Fred Towne was Toastmaster.

Taintor responded to the toast,	"The Junior"
Dixon	"The Technique"
Speer	"The Institute"
Noblit	"Athletics"
Maki	"Asobi"
Vorce	"The Specials"
Beattie	"Tech's Position in the College World"
Rice	"The Class Spirit"

There was music by the Banjo Club.

On April 20, 1892, at Odd Fellows Hall, was given the "Complimentary Dinner to The Senior Class and Faculty." The presiding officer was A. F. Bemis, and Rigby Wason was Toastmaster. The program was as follows:

Address	A. F. Bemis
"The Senior"	W. R. Kales
"The Institute"	Prof. C. R. Cross
Music	Banjo Club
"The Graduate"	Theodore Spencer, '91
"The Junior"	E. E. Blake
"The Faculty"	Prof. Jules Luquiens
Music	Glee Club
"Athletics"	Charles Taintor
"The Sophomore"	C. A. Meade
"Imports"	R. R. de Carvalho
"Home Rule"	Prof. C. H. Levermore
"The Fishermen"	E. H. Huxley
Music	Glee and Banjo Clubs

Fabyan sang first bass, and G. E. Merrill and Vorce second bass in the Glee Club.

Some progress had evidently been made when the Dinner of March 17, 1893, was held at the Parker House. There were eighty-six present. President A. F. Bemis presided, and Richmond was Toastmaster.

Taintor responded to the Toast,	"The Institute"
Towne	"The Faculty"
Vorce	"Athletics"
Rice	"The Tech"
Bemis	"The Class of '93"
Gorham	"The Institute Committee"
Blake	"Our Sheepskins"
Thomas	"Our Honor Men"
Wason	"The Future"
Speer	"The Ladies"
Howland	"The Home Stretch"

This dinner was also noteworthy as being the first Technology class dinner at which specially designed menu cards were used. The cards were designed by Perkins, and were such a success that the plan of using specially designed cards was adopted by other classes.

ATHLETICS

The principal athletic effort made at this time by the Institute was football. The class contributed their full share to this effort, and the following men played on the Varsity Team: Lord, Boyd, Noblit, Beattie, Vorce, Slade '92, P. H. Thomas, Taintor, Dearborn, Andrews, Abbott.

The following men played on our Freshman Football Team: Vorce, Beattie, Batcheller, Taintor, Heywood, Simonds, Beddall, Godchaux, Noblit, Foss, Cutler.

In our Sophomore year following, the Football Team was victorious and beat the Freshmen.

Our Freshman Baseball Team was beaten by '92, score 15 to 6. In our Sophomore year the following men played for the class: Brockunier, Johnson, Emery, Belden, Calkins, Whiting, Burke, Dolan, Palmer, Ashton.

A fair number of the class made very creditable records in what would now be called Track Athletics. Heywood attained what might be considered the high point with a high kick of 9′ 1″ made Decem-

ber 14, 1889, although it was stated in the *Boston Herald,* in regard to the appearance of Freddie Lord in the B. A. A. games, that "interest centered in the Delsartean Exemplar, F. Lord."

Batcheller, Brooks, Cutler and J. C. Hanscom formed a sturdy Tug-of-War Team. Beattie and Dana performed in fencing, and the class was well represented in sparring by Brown. Lord, Gorham and Stanwood figured in the 50-yard dash.

Other members of the class appearing in various track events were A. B. Payne, Jr., in the 600-yard dash, C. R. Boss, in 100-yard, and C. Taintor and F. W. Baker in the 440-yard dash, while T. T. Dorman made an excellent showing in the mile. G. K. Dearborn made the Institute record of 220 hurdles in 31 seconds.

"Tech"

The following members of the class were on the Editorial Board of "Tech": H. L. Rice, A. F. Bemis, F. H. Howland, F. W. Lord, J. R. Speer, H. A. Richmond and R. H. Beattie.

Senior Class Day Officers

In our senior year the following Class Day officers were elected: Chief Marshal, C. W. Taintor; Second Marshal, F. M. Dillon; Third Marshal, Marvine Gorham; Orator, E. E. Blake; Historian, W. G. Houck; Poet, H. A. Richmond; Statistician, P. H. Thomas; Prophet, H. A. Morss.

CLASS SONG— **Thirtieth Reunion**

"OLD '93'S AS GOOD AS SHE USED TO BE."

WORDS BY HOUCK AND GORHAM

TUNE: "OLD GREY MARE"

Old '93's as good as she used to be,
Good as she used to be,
Good as she used to be,
Old '93's as good as she used to be,
Good as she used to be,
Good as she used to be,
Thirty years ago,
Thirty years ago,
Thirty years ago,
Old '93's as good as she used to be,
Good as she used to be,
Good as she used to be,
Thirty years ago.

Thirty years from now she'll be
Better than she used to be,
Better than she used to be,
Thirty years from now she'll be
Better than she used to be,
Better than she used to be,
Thirty years ago,
Thirty years ago,
Thirty years ago,
Thirty years from now she'll be
Better than she used to be,
Better than she used to be,
Thirty years ago.

ACKNOWLEDGMENT

Credit, if any, for the production of this book, should not be given to the Secretary of the Class, who, through the demands of business and other activities, has been able to give only general oversight to its preparation. The work of gathering and verifying information, of compilation and editing, and of supervision of printing and publication, has been done at the Secretary's office by his personal secretary, Mrs. Mary A. Plumer, who has given most liberally of her time and effort during a period of three years for the success of the undertaking.

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